



Title V Operating Permit

Permit No: **TV-OP-036**
Date Issued: **July 3, 2001**

This certifies that:
Hampshire Chemical Corp.
2 East Spit Brook Road
Nashua, NH 03060-5737

has been granted a Title V Operating Permit for the following facility and location:
Hampshire Chemical Corp.
2 East Spit Brook Road
Nashua, NH 03060-5737
AFS Point Source Number 3301100198

This Title V Operating Permit is hereby issued pursuant to RSA 125-C and Part Env-A 609. This permit has been prepared based on information specified in the Title V Operating Permit Application filed with the New Hampshire Department of Environmental Services (DES) on **July 1, 1996** and subsequent information submitted on **October 1, 1998, and August 23, 1999** under signature of the permittee's responsible official certifying to the best of their knowledge that the statements and information therein are true, accurate and complete.

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This Permit is issued by the New Hampshire Department of Environmental Services, Air Resources Division pursuant to its authority under New Hampshire RSA 125-C and in accordance with the provisions of Code of the Federal Regulations 40 Part 70.

This Title V Operating Permit shall expire on **July 31, 2006**.

SEE ATTACHED SHEETS FOR ADDITIONAL PERMIT CONDITIONS

For the New Hampshire Department of Environmental Services, Air Resource Division

Director, Air Resources Division

TABLE OF CONTENTS

Permit Section Number	Title V Operating Permit Condition	Page Number
	Facility Specific Title V Operating Permit Conditions	
I.	Facility Description of Operations	4
II.	Permitted Activities	4
III.	Significant Activities Identification - Table 1. -Stack Criteria - Table 2.	5-11
IV.	Insignificant Activities Identification	11
V.	Exempt Activities Identification	11
VI.	Pollution Control Equipment Identification - Table 3.	12-14
VII.	Alternative Operating Scenarios	14
VIII.	Applicable Requirements	15-80
VIII A.	State-only Enforceable Operational and Emission Limitations - Table 4.	15-17
	State-only Enforceable Operational and Emission Limitations - Table 4A. Maximum Batches per Day for Each Production Plant Operation	18-20
VIII B.	Federally Enforceable Operational and Emission Limitations - Table 5.	21-26
VIII C.	Emission Reductions Trading Requirements	26
VIII D.	Monitoring and Testing Requirements - Table 6 Periodic Monitoring Requirements for Condensers/Scrubbers - Table 6-A.	27-28 29-46
VIII E.	Record keeping Requirements - Table 7.	47-50
VIII F.	Reporting Requirements - Table 8.	51-53
VIII G.	Hazardous Organic NESHAP (HON) Requirements Applicable to Plant 4 - Table 9	54-80
VIII H.	Applicable HON Requirements That Have Been Completed - Table 10	81
IX.	Requirements Not Currently Applicable - Table 11	82-83
	General Title V Operating Permit Conditions	
X.	Issuance of a Title V Operating Permit	83
XI.	Title V Operating Permit Renewal Procedures	83
XII.	Application Shield	83
XIII.	Permit Shield	83-85

Permit Section Number	Title V Operating Permit Condition	Page Number
XIV.	Reopening for Cause	85
XV.	Administrative Permit Amendments	85
XVI.	Operational Flexibility	85-86
XVII.	Minor Permit Amendments	86-87
XVIII.	Significant Permit Amendments	87
XIX.	Title V Operating Permit Suspension, Revocation or Nullification	87
XX.	Inspection and Entry	87
XXI.	Compliance Certification	87-88
XXII.	Enforcement	88-89
XXIII.	Emission-Based Fees	89-90
XXIV.	Duty to Provide Information	90
XXV	Property Rights	90
XXVI	Severability Clause	90
XXVII	Emergency Conditions	90-91
XXVIII	Permit Deviations	91
	Appendices	
	Appendix A - HON Applicability to IPN Plant Equipment	93
Table A1	HON Applicability to IPN Plant Equipment - Process Equipment	94
Table A2	HON Applicability to IPN Plant Equipment - Storage Vessels	95
Table A3	HON Applicability to IPN Plant Equipment - Transfer Equipment	95
Table A4	HON Applicability to IPN Plant Equipment - Process Wastewater Equipment	95
	Appendix B - Maximum Daily Emission Rates for the Facility	96
Table 4B	State-only Enforceable Operational and Emission Limitations - Table 4B. Maximum Daily Emission Rates (lb/day)	97-99
	Appendix C - Stratospheric Ozone Protection	100
Table C1	List of Chiller Units at Hampshire Chemical Corp.	101

Facility Specific Title V Operating Permit Conditions

I. Facility Description of Operations:

Hampshire Chemical Corp. (HCC) produces industrial organic and inorganic chemicals. The major products are chelating agents, shampoos, sarcosine, isophorone nitrile, and other various organic intermediates, all on a batch or campaign basis. Each batch product is produced following an established chemical recipe and a unique Standard Operating Procedure (SOP) for that product.

The major components of the facility are as follows:

- Plants #1, #2, and #3, which are multipurpose plants manufacturing chelates, shampoos, and sarcosine, and Plant #4 which manufactures isophorone nitrile;
- Plants #1, #2, #3, and #4 Production Facilities also include raw materials and product storage and transfer systems;
- Pilot Plant and Semi-Works Facility (SWF);
- Biological Wastewater Treatment System for Process Wastewater;
- Boilers for Steam Generation and Other Combustion Sources; and
- Miscellaneous Support Operations/Sources

II. Permitted Activities:

In accordance with all of the applicable requirements and state requirements identified in this Permit, the Permittee is authorized to operate the devices and or processes identified in Sections III, IV, V and VI within the terms and conditions specified in this Permit.

III. Significant Activities Identification:

A. The activities identified in Table 1 are subject to and regulated by this Title V Operating Permit:

Table 1 - Significant Activity Identification			
Emission Unit Number (EU#)	Description of Emission Unit	Exhaust Stack Identification (Building # and Vent ID#)	Emissions Unit Maximum Allowable Permitted Capacity
BlrA	Boiler A Cleaver Brooks Boiler 500 Hp Installed 1966	Bldg. 9, B09-CN-01 (combined stack for Boilers A, B, C, & D)	20.9 mmBtu/hr gross heat input derived from No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or No. 2 fuel oil with a maximum sulfur content of 0.4% by weight or natural gas with a maximum sulfur content of 5 grains per 100 cubic feet; subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined to not exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight and such that SO ₂ emissions do not exceed 409 tons for purposes of PSD avoidance; SO ₂ emissions to be calculated based on the quantity and types of fuel fired assuming the maximum allowable sulfur content for each type of fuel as stated above
BlrB	Boiler B Cleaver Brooks Boiler 500 Hp Installed 1969	Bldg. 9, B09-CN-01 (combined stack for Boilers A, B, C, & D)	20.9 mmBtu/hr gross heat input derived from No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or No. 2 fuel oil with a maximum sulfur content of 0.4% by weight or natural gas with a maximum sulfur content of 5 grains per 100 cubic feet; subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined to not exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight and such that SO ₂ emissions do not exceed 409 tons for purposes of PSD avoidance; SO ₂ emissions to be calculated based on the quantity and types of fuel fired assuming the maximum allowable sulfur content for each type of fuel as stated above

Table 1 - Significant Activity Identification

BlrC	Boiler C Cleaver Brooks Boiler 600 Hp Installed 1976	Bldg. 9, B09-CN-01 (combined stack for Boilers A, B, C, & D)	25.1 mmBtu/hr gross heat input derived from No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or No. 2 fuel oil with a maximum sulfur content of 0.4% by weight or natural gas with a maximum sulfur content of 5 grains per 100 cubic feet; subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined to not exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight and such that SO ₂ emissions do not exceed 409 tons for purposes of PSD avoidance; SO ₂ emissions to be calculated based on the quantity and types of fuel fired assuming the maximum allowable sulfur content for each type of fuel as stated above
BlrD	Boiler D Cleaver Brooks Boiler 800 Hp Installed 1988	Bldg. 9, B09-CN-01 (combined stack for Boilers A, B, C, & D)	33.47 mmBtu/hr gross heat input derived from No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or No. 2 fuel oil with a maximum sulfur content of 0.4% by weight or natural gas with a maximum sulfur content of 5 grains per 100 cubic feet; subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined to not exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight and such that SO ₂ emissions do not exceed 409 tons for purposes of PSD avoidance; SO ₂ emissions to be calculated based on the quantity and types of fuel fired assuming the maximum allowable sulfur content for each type of fuel as stated above

Table 1 - Significant Activity Identification

HOHtr	Hot Oil Heater Installed 1976	Bldg. 2, B02-CN-01	13.3 mmBtu/hr gross heat input derived from No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or No. 2 fuel oil with a maximum sulfur content of 0.4% by weight or natural gas with a maximum sulfur content of 5 grains per 100 cubic feet; subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined to not exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight and such that SO ₂ emissions do not exceed 409 tons for purposes of PSD avoidance; SO ₂ emissions to be calculated based on the quantity and types of fuel fired assuming the maximum allowable sulfur content for each type of fuel as stated above
CKiln	Chelate Kiln Installed 1965	Bldg. 5, B05-PN-05	4.0 mmBtu/hr gross heat input derived from propane or natural gas
Plt3EK	Plant 3 Expansion Kiln Installed 1982	Bldg. 15, B15-PN-17	3.0 mmBtu/hr gross heat input derived from propane or natural gas
Plt2K	Plant 2 Kiln Installed 1968	Bldg. 8, B08-PN-21	1.5 mmBtu/hr gross heat input derived from propane or natural gas
Plt3FD	Plant 3 Flash Dryer Installed 1975	Bldg. 15, B15-PN-18	1.0 mmBtu/hr gross heat input derived from propane or natural gas
Na ₂ SO ₄ FD	Sodium Sulfate Flash Dryer Installed 1975	Bldg. 15, B15-PN-01	1.0 mmBtu/hr gross heat input derived from propane or natural gas
Plt1K	Plant 1 Kiln Installed 1965	Bldg. 3, B03-PN-31	0.8 mmBtu/hr gross heat input derived from propane or natural gas
IPNBtr	IPN Plant Boiler Installed 1993	Bldg. 18, B18-CN-01	2.0 mmBtu/hr gross heat input derived from propane or natural gas
EG140	140 hp Diesel Emergency Generator Installed 1985	Bldg. 15	Less than 500 hours operation in any consecutive 12 month period
EG175	175 hp Diesel Emergency Water Pump Installed 1972	West Property Boundary	Less than 500 hours operation in any consecutive 12 month period
Plt1	Production Plant #1	Bldg. 3, 3A, 4, 5, & Tank Farm	See State-Only Enforceable Operational & Emissions Limitations specified in Tables 4A and 4B of this permit

Table 1 - Significant Activity Identification			
Plt2	Production Plant #2	Bldg. 8 & Tank Farm	See State-Only Enforceable Operational & Emissions Limitations specified in Tables 4A and 4B of this permit
Plt3	Production Plant #3	Bldg. 15 & Tank Farm	See State-Only Enforceable Operational & Emissions Limitations specified in Tables 4A and 4B of this permit
Plt4	Production Plant #4 (Isophorone Nitrile (IPN) Process)	Bldg. 18 & Tank Farm	See State-Only Enforceable Operational & Emissions Limitations specified in Tables 4A and 4B of this permit
SWF	Semi-Works Facility (SWF)	Bldg. 10	See State-Only Enforceable Operational & Emissions Limitations located in the Facility Wide Modeling Report for Regulated Toxic Air Pollutants (RTAPs), Appendix B, Attachment B-3, dated November 2000

Notes:

1. Table 4A is on pages 17 through 19 of Section VIII.A. - State-only Enforceable Operational and Emissions Limitations in this Title V Operating Permit.
2. Table 4B is located in Appendix B of this Title V Operating Permit.

B. Stack Criteria - Sources of State-Only Regulated Toxic Air Pollutants:

The following stacks emit regulated toxic air pollutants subject to state-only enforceable requirements¹ found in Env-A 1400. In accordance with RSA 125-C:11, I-a. and Env-A 609.04(a), Hampshire Chemical Corp. shall comply with the stack parameters contained in Table 2A. The information presented in Table 2A accounts for the stack parameters, including discharge orientations and stack air flow rates, incorporated in the Facility Wide Modeling Report for Regulated Toxic Air Pollutants dated November 2000, demonstrating compliance for Hampshire Chemical Corp. with Env-A 1400 and are state-only enforceable requirements. Stack parameters may be changed by the facility provided the facility: (i) determines in advance of such change in accordance with the requirements of Env-A 1406, Methods of Demonstrating Compliance, that it will remain in compliance with applicable ambient air limits established under Env-A 1400; (ii) maintains on site a written record of such determination; and (iii) provides DES with written notice of such change not later than ten days following completion of such change.

Table 2A - Stack Criteria for Sources of State-Only Regulated Toxic Air Pollutants			
Stack # (Vent ID#)	Emission Unit ID/Description	Minimum Stack Height (Feet) Above Ground Level	Maximum Stack Diameter (Inches)
B02-TN-01	TA-02-172, Plant 1 Ammonia Scrubber System	28.0	12
B02-TN-04	TA-02-015, Baume Ammonia Scrubber	20.0	12
B02-TN-05	TA-02-161, NH3 Distillation Bottoms Tank	24.0 (raincap)	6
B03-PN-06	VA-03-068, Bottoms Slurry Hold Tank	67.0 (gooseneck)	1.5
B03-PN-17	VA-03-076, Shampoo Process Scrubber	61.0 (gooseneck)	3
B03-PN-45	TA-03-230, #4 Reactor Scrubber	61.0	2
B03-PN-46	TA-03-232, #5 Reactor Scrubber	61.0	2
B03-PN-22	VA-03-026, Sharples Centrifuge & #4 Top Slurry Hold Tank	73.0 (gooseneck)	2
B03-PN-36	VA-03-039, #1 Top Slurry Hold Tank	69.0 (gooseneck)	1.5
B03-PN-40	VA-03-058, Plant 1 Multipurpose Scrubber	78.0	6
B03-TN-01	TA-03-119, Plant 1 Formaldehyde Scrubber	33.0	6
B03-TN-05	TA-03-148, PCL3 Scrubber Tank	13.0 (horizontal)	3
B03-TN-19	VB-03-102, Isopropanol Scrubber	54.5 (gooseneck)	2

¹

The term “state-only enforceable requirement” is used to refer to those requirements that are not federally enforceable but are state requirements as defined in Env-A 101.263.

Table 2A - Stack Criteria for Sources of State-Only Regulated Toxic Air Pollutants			
B05-PN-02	VA-05-134, Ag Chelate Tank 134	29.0	16
B05-PN-04	VA-05-136, Ag Chelate Tank 136	27.0	16
B05-TN-01	TA-05-175, HNO ₃ Storage Tank Scrubber	3.0 (gooseneck)	2
B08-PN-04	VA-08-033, Plant 2 HCN Scrubber	56.0	30
B08-PN-09	VA-08-079, Plant 2 Ammonia Scrubber System	59.0	8
B08-PN-11	VA-08-003, Scrubber for D-Reactor & Reslurry Feed Tank (Not in Use)	56.0	10" X 11"
B08-PN-17	VB-08-062, Plant 2 Seal Tank Scrubber (not in use)	16.0	3
B08-PN-23	VA-08-037, Plant 2 Formaldehyde Scrubber	53.0	3
B08-TN-06	TB-08-150, Plant 2 Multipurpose Scrubber	24.0	6.5
B10-PN-06	VA-10-025, Packed Column Scrubber	43.0	8.25
B10-PN-12	Fume Hood, SWF	45.0	18
B10-PN-32	Kinney Vacuum Pump, SWF	40.0	2.5
B10-PN-39	Busch Vacuum Pump, SWF	30.0 (horizontal)	3
B10-PN-40	Kinney Liquid Ring Vacuum Pump	16.0 (horizontal)	2
B15-PN-02	MA-15-022, Primary Centrifuge	28.0 (downward)	3
B15-PN-09	VA-15-011, Plant 3 Ammonia Scrubber System	30.0 (raincap)	8
B15-PN-11	VA-15-007, Plant 3 HCN Seal Tank Scrubber	44.0 (downward)	2
B15-TN-03	TA-15-114, Plant 3 Tank Farm Multipurpose Scrubber	20.0	8
B15-TN-05	TA-15-104, Phase II Liquor Storage Scrubber	13.0 (gooseneck)	2
B16-TN-11	TA-16-509, HCN Railcar Wash Tank	41.0	16
B18-PN-02	VA-18-002, Plant 4 Process Scrubber	20.0	4
B18-TN-01	TA-18-101, Plant 4 Effluent Scrubber	14.0 (gooseneck)	3
B45-TN-01	TA-45-115, South End HCN Storage Scrubber	8.0 (gooseneck)	6
B45-TN-02	TA-45-187, North End HCN Storage Scrubber	10.0 (gooseneck)	4

C. Stack Criteria - Combustion Sources

In accordance with Env-A 609.04(a), the following list of combustion sources (fuel burning equipment) contained in Table 2B shall each have an exhaust stack that discharges vertically, without obstruction, and meets the following criteria set forth in Table 2B. Stack parameters may be changed by the facility provided that the facility: (i) determines in advance of such change that any modification will be modeled for compliance with National Ambient Air Quality Standards (NAAQS); (ii) maintains on site a written record of such determination; and (iii) provides DES with written notice of such change not later than ten days following completion of such change.

Table 2B - Combustion Sources - Stack Criteria			
Stack # (Vent ID#)	Emission Unit ID/Description	Minimum Stack Height (Feet) Above Ground Level	Maximum Stack Diameter (Inches)
B09-CN-01	BlrA	100.0 (Combined Stack; Boilers A, B, C, & D)	36
B09-CN-01	BlrB	100.0 (Combined Stack; Boilers A, B, C, & D)	36
B09-CN-01	BlrC	100.0 (Combined Stack; Boilers A, B, C, & D)	36
B09-CN-01	BlrD	100.0 (Combined Stack; Boilers A, B, C, & D)	36
B02-CN-01	HOHtr	71.0	30
B05-PN-05	CKiln	15.0	97" X 13"
B15-PN-18	Plt3EK	37.0	12
B08-PN-21	Plt2K	50.0	10
	Plt3FD	37.0	12
B15-PN-01	NaS04FD	29.0	6
B03-PN-31	Plt1K	58.0	12" X 11"
B18-CN-01	IPNBlr	25.0	10
B15-CN-01	EG140	11.0	6
B12-CN-01	EG175	7.5	6

IV. Insignificant Activities Identification:

All activities at this facility that meet the criteria identified in the New Hampshire Rules Governing the Control of Air Pollution Part Env-A 609.03(g), shall be considered insignificant activities. Emissions from the insignificant activities shall be included in the total facility emissions for the emission-based fee calculation described in Section XXIII of this Permit.

V. Exempt Activities Identification:

All activities identified in the New Hampshire Rules Governing the Control of Air Pollution Env-A 609.03(c) shall be considered exempt activities and shall not be subject to or regulated by this Title V Operating Permit.

VI. Pollution Control Equipment Identification:

In accordance with RSA 125-C:11, I-a. and Env-A 609.04(a), Hampshire Chemical Corp. shall operate the pollution control equipment listed in Table 3 in order to comply with ambient air limits contained in Env-A 1400 [state-only enforceable], particulate matter standards contained in Env-A 2100 [federally enforceable], and volatile organic compound emission standards contained in Env-A 1204.27(d)(2) [federally enforceable].

Table 3 - Pollution Control Equipment Identification			
Emission Control System Vent ID #	Emission Control System Description	Emission Control System Individual Equipment Type and ID #	Pollutant & Minimum Removal Efficiency at Maximum Production Rate (%)¹
B02-TN-01	Plant 1 Ammonia Scrubber Configuration #1 (Venturi and packed column)	MC-03-073 - Venturi MD-03-073 - Venturi FA-02-172 - Packed Column	CH3OH 81.0 CH2O 98.5 HCN 99.5 NH3 99.96 Amines 81.0 HNO3 81.0 MMA 99.9
B02-TN-01	Plant 1 Ammonia Scrubber Configuration #2 (Packed column and packed column)	MC-03-073 - Venturi MD-03-073 - Venturi FA-03-051 - Packed Column FA-03-053 - Packed Column FA-03-054 - Packed Column FA-03-055 - Packed Column FA-02-172 - Packed Column	CH3OH 81.0 CH2O 98.5 HCN 99.5 NH3 99.96 Amines 81.0 HNO3 81.0 MMA 99.9
B02-TN-04	Baume (NH3) Scrubber	MA-02-015 - Venturi - Anhydrous Railcar Vent VA-02-015 - Packed Column	NH3 93.0
B03-PN-17	Shampoo Process Scrubber	MA-03-057 - Venturi MB-03-057 - Venturi VB-03-076 - Packed Column	HCL 99.45
B03-PN-40	Plant 1 Multipurpose Scrubber	MA-03-058 - Venturi MC-03-092 - Venturi MD-03-092 - Venturi FA-03-058 - Packed Column	CH3OH 81.0 CH2O 87.0 HCN 81.0 Amines 81.0 HNO3 81.0 MMA 81.0
B03-PN-46	#5 Reactor/Hold Tank Scrubber (not installed yet)	MA-03-232 - Venturi MB-03-232 - Venturi FA-03-232 - Packed Column	HCl 99.45
B03-PN-45	#4 Reactor/Hold Tank Scrubber (not installed yet)	MA-03-230 - Venturi MB-03-230 - Venturi FA-03-230 - Packed Column	HCl 99.45
B03-TN-01	Plant 1 Formaldehyde Tank Scrubber	MC-03-119 - Venturi FC-03-119 - Packed Column	CH3OH 81.0 CH2O 98.0

Table 3 - Pollution Control Equipment Identification

B03-TN-05	PCl3 Storage Tank Scrubber	MA-03-148 - Venturi VB-03-148 - Packed Column	HCl 91.10
B03-TN-19	Isopropanol (IPA) Scrubber	MA-03-102 - Venturi MB-03-102 - Venturi	IPA 81.0 NH3 81.0
B05-TN-01	HNO3 Storage Tank Scrubber	MA-05-175 - Venturi	HNO3 81.0
B08-PN-04	Plant 2 HCN Scrubber	MA-08-033 - Venturi	CH3OH 81.0 CH2O 81.0 HCN 81.0 NH3 81.0
B08-PN-09	Plant 2 Ammonia Scrubber	MA-08-067 - Primary Absorber Column VA-08-075 - Packed Column	CH3OH 81.0 CH2O 98.43 Amines 81.0 NH3 99.86 MMA 96.5
B08-PN-17	Plant 2 Seal Tank Scrubber	MA-08-062 - Venturi MB-08-062 - Venturi MC-08-062 - Venturi	CH3OH 81.0 CH2O 81.0 Amines 81.0 HCN 81.0
B08-PN-23	Plant 2 Formaldehyde Scrubber	MA-08-037 - Venturi	CH3OH 81.0 CH2O 81.0
B08-TN-06	Plant 2 Multipurpose Scrubber	MA-08-150 - Venturi VA-08-150 - Packed Column	CH3OH 81.0 CH2O 98.0 Amines 81.0 MMA 96.3
B10-PN-06	Semi-Works Facility Scrubber	VA-10-025 - Packed Column	See Facility Wide Modeling Report for RTAPs, Appendix B, Attachment B-3, dated November 2000
B15-PN-09	Plant 3 Ammonia Scrubber	FB-15-011 - Venturi FA-15-011 - Packed Column	CH3OH 81.0 CH2O 81.0 NH3 99.9
B15-PN-11	Plant 3 HCN Seal Tank Scrubber	MA-15-035 - Venturi MB-15-035 - Venturi	CH3OH 81.0 CH2O 81.0 HCN 99.09 Amines 81.0
B15-TN-03	Plant 3 Tank Farm Multipurpose Scrubber	MA-15-114 - Venturi MB-15-114 - Venturi VA-15-114 - Packed Column	CH3OH 81.0 CH2O 81.0 Amines 81.0 NH3 88.10
B15-TN-05	Phase II Liquor Storage Scrubber	MA-15-104 - Primary Scrubber MB-15-104 - Secondary Scrubber	CH3OH 81.0 CH2O 81.0 HCN 81.0
B18-PN-02	Plant 4 Process Scrubber	MA-18-002 - Venturi VB-18-002 - Packed Column	CH3OH 81.0 HCN 81.0 Isophorone 81.0

Table 3 - Pollution Control Equipment Identification

B18-TN-01	Plant 4 Effluent Scrubber	MA-18-101 - Venturi MB-18-101 - Venturi	Isophorone 81.0
B45-TN-01	Plant 3 South End HCN Storage Scrubber	MA-45-115 - Venturi	HCN 99.33
B45-TN-02	Plant 3 North End HCN Storage Scrubber	MA-45-187 - Venturi MB-45-117 - Venturi	HCN 99.60

Footnote:

1. These are state requirements as defined in Env-A 101.263.

The listed control efficiencies in Column 4 were applied to the defined worst-case emission scenarios which were based on the manufacture of the products with the highest resulting emissions and on the maximum operational throughput of those products on a batch per day basis. The resulting predicted maximum daily emissions were then used in air dispersion modeling to demonstrate compliance with all applicable New Hampshire Ambient Air Limits (AALs). Stack tests and/or conservative calculations of control efficiencies using the Aspen model confirm that these levels of control can be achieved at maximum production rates.

All equipment, facilities, and systems installed and used to achieve compliance with the terms and conditions of this Permit, shall at all times be maintained in good working order, and shall be operated as efficiently as possible so as to minimize air pollutant emissions and meet all applicable air pollution emission limits. The control listed shall be fully operational upon facility startup and shall not be bypassed during startup, operation, or shutdown of the process associated with the pollution control equipment.

VII. Alternative Operating Scenarios:

No alternative operating scenarios were identified for this Permit.

VIII. Applicable Requirements:**VIII. A. State-only Enforceable Operational and Emission Limitations:**

The Permittee shall be subject to the state-only operational and emission limitations identified in Tables 4 and 4A below, and maximum daily emissions (lb/day) contained in Table 4B in Appendix B.

Table 4 - State-only Enforceable Operational and Emission Limitations			
Item #	Regulatory Cite	Applicable Emission Unit	Description of State-Only Applicable Requirement
1.	Env-A 404.01	Facility Wide	Sulfur Dioxide emissions from each Class B major source, shall have an average emission rate of 1.6 pounds of sulfur dioxide per million Btu input, equivalent to no. 6 oil with 1.5 percent sulfur by weight.
2.	Env-A 1403.01	Facility Wide	In accordance with Env-A 1403.01, new or modified devices or processes installed after May 8, 1998, shall be subject to the requirements of Env-A 1400.
3.	Env-A 1403.02(b)	Facility Wide	In accordance with Env-A 1403.02(b), all existing devices or processes in operation after the transition period ending three years from May 8, 1998 (May 8, 2001), shall comply with Env-A 1400. Env-A 1300 will no longer be in effect.
4.	Env-A 1404.01(d)	Facility Wide	In accordance with Env-A 1404.01(d), documentation for the demonstration of compliance shall be retained at the site, and shall be made available to the DES for inspection.

Table 4 - State-only Enforceable Operational and Emission Limitations

5.	Env-A 1406.01	Facility Wide	<p>In accordance with Env-A 1406.01 the owner of any device or process which emits a regulated toxic air pollutant shall determine compliance with the ambient air limits by using one of the methods provided in Env-A 1406.02, Env-A 1406.03, or Env-A 1406.04. Upon request, the owner of any device or process which emits a regulated toxic air pollutant shall provide documentation of compliance with the ambient air limits to the DES.</p> <p>On July 1, 1999 Hampshire Chemical Corp. submitted an ambient air dispersion modeling analysis for Regulated Toxic Air Pollutants (RTAPs) emitted by the facility in order to demonstrate compliance with the requirements of Env-A 1400. The Technical Services Bureau of the Air Resources Division of DES reviewed the modeling analysis and verified that the results demonstrate compliance for the facility with the ambient air limits (AALs) contained in Env-A 1400.</p> <p>In November 2000 Hampshire Chemical Corp. submitted a revised air dispersion modeling analysis accounting for a revised maximum worst-case emissions scenario and associated emission unit emission rates and control efficiencies. The analysis was conducted using the same modeling protocol and demonstrated compliance with all AALs. The modeling analyses incorporated maximum emission rates based on the defined maximum worst-case emission scenario and associated control device efficiencies as outlined in Table 3. The maximum worst-case emission scenario was based on the manufacture of the products with the maximum emissions and on the maximum proposed production rate in batches per day. The maximum numbers of batches per day for various products by process area are listed in Table 4A and are considered to be State-Only Enforceable operational and emission limitations. The maximum daily emission rates (lb/day) of individual RTAPs for each exhaust vent are listed in Table 4B in Appendix B and are considered to be State-Only Enforceable operational and emission limitations. These maximum daily emission rates and number of batches per day coupled with pollution control equipment removal efficiencies ensure compliance with all the AALs contained in Env-A 1400 applicable to Hampshire Chemical Corp.</p> <p>If Hampshire Chemical Corp. intends to manufacture any new products in any of the production areas located at the facility that will increase existing emissions of any regulated toxic air pollutant or add new emissions of any regulated toxic air pollutant to Hampshire's existing emissions inventory, Hampshire shall determine in accordance with Env-A 1406 prior to the commencement of production that the emissions of regulated toxic air pollutants resulting from such production changes comply with the ambient air limits set forth in Env-A 1450.01. No production of new product shall be allowed unless Hampshire can demonstrate compliance with Env-A 1400. Tables 4A and 4B shall be modified, as necessary, to reflect any changes in production. Modifications of Tables 4A and 4B shall be subject to the provisions of Section XVII., Minor Permit Amendments, of this Permit.</p>
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Table 4 - State-only Enforceable Operational and Emission Limitations

6.	Env-A 806.01(a) Performance Testing of Pollution Control Systems Listed	Facility Wide	<p>Hampshire Chemical shall conduct performance testing of the sources listed below after Phases I and II are completed, as detailed in the Periodic Monitoring Requirements Table 6-A, and prior to the Permit expiration date. Table 3 (Pollution Control Equipment Identification) includes columns listing chemical compounds and the removal efficiencies, Table 4A lists the maximum batch production rates at which the performance tests shall be conducted, and Table 4B in Appendix B lists the maximum emission rates in lb/day allowed for each device which will be the basis of the performance test. Hampshire Chemical shall submit a detailed sampling plan and test protocol thirty (30) days in advance of the performance test and schedule such performance test such that DES personnel will be present to observe such testing. EPA approved methods shall be used to determine the quantities of emissions of the selected chemical compounds. Thirty (30) days after completion of such performance tests, Hampshire Chemical shall submit performance test results to the DES. Performance tests shall not be aborted unless approved by DES. Hampshire Chemical Corp. shall conduct testing of each of the systems listed below at maximum operating rate and/or at a Division approved operating rate.</p> <p><u>Vent ID#/Description</u> B02-TN-01 Plt. 1 Ammonia Scrubber System B02-TN-04 26 Baume Ammonia Scrubber System B03-PN-17 Shampoo Process Scrubber System B03-PN-45 #4 React/Hold Tk. Scrubber System B03-PN-46 #5 React/Hold Tk. Scrubber System B03-PN-40 Plt. 1 Multipurpose Scrubber System B03-TN-01 Plt. 1 Formaldehyde Tank Scrubber System B03-TN-05 PCL3 Storage Tank Scrubber System B03-TN-19 IPA Scrubber B05-TN-01 HNO3 Storage Tank Scrubber System B08-PN-04 Plt. 2 HCN Scrubber System B08-PN-09 Plt. 2 NH3 Scrubber System B08-PN-17 Plt. 2 Seal Tank Scrubber System B08-PN-23 Plt. 2 Formaldehyde Scrubber System B08-TN-06 Plt. 2 Multipurpose Scrubber System B10-PN-06 SWF Packed Column B15-PN-09 Plt. 3 Ammonia Scrubber System B15-PN-11 Plt.3 HCN Seal Tank Scrubber System B15-TN-03 Plt. 3 Tk. Farm Multipurpose Scrubber Sys. B15-TN-05 Phase II Liquor Storage Scrubber System B18-PN-02 Plt. 4 Process Scrubber System B18-TN-01 Plt. 4 Effluent Scrubber System B45-TN-01 Plt. 3 S. End HCN Storage Scrubber B45-TN-02 Plt. 3 N. End HCN Storage Scrubber</p>
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**Table 4A - State-only Enforceable Operational & Emissions Limitations
Maximum Batch Production for Each Production Plant Operation**

Product Code	Product Name	Maximum Batches/Day
Plant 1 - Bldg. #3		
0100	HAMP-ENE 100	18
0108	HAMP-ENE 108	1
0110A	HAMP-ENE 100 (Bersworth)	12
0125	HAMP-ENE 100 (NH ₄) ₂	8
0130	HAMP-ENE 100 K4 100	6
0135	HAMP-ENE 100 K3 123	6
0188	HAMP-ENE 100 EDTN	6
0200	HAMP-OL 120	12
0400	HAMP-EX 80	12
0500	EDG	10
0501	DEG	10
0805	Sarcosine	6
Ammonia Recovery Process		2
Plant 1 - Bldg. #3 HAMPOSYL		
0710A	HAMPOSYL L	20
0712	HAMPOSYL LGA	20
0713	HAMPOSYL LED3ANa3	20
0719A	HAMPOSYL L-30	20
0720A	HAMPOSYL L-30	20
0721	HAMPOSYL L-30	20
0724	HAMPOSYL L-30	20
0726	HAMPOSYL (with DMDMH)	1
0728	HAMPOSYL L-30	20
0730A	HAMPOSYL C	20
0740A	HAMPOSYL C-30	20
0741	HAMPOSYL CGA-Na	20
0742	HAMPOSYL CGA-TEA	20

**Table 4A - State-only Enforceable Operational & Emissions Limitations
Maximum Batch Production for Each Production Plant Operation**

0744	HAMPOSYL C-30	20
0750A	HAMPOSYL O	20
Plant 1 - Bldg. #3 (HAMPOSYL)		
0760	LIDA	20
0775	HAMPOSYL M-30	20
0778	HAMPFOAM 35	20
0780	HAMPOSYL S	20
0785	HAMPOSYL S & M	20
0791	GEROPON T-77	20
0792	IGEPON T-43	20
0794	IGEPON T-22A	20
0796	IGEPON T-33	20
0798	IGEPON T-51	20
Plant 1 - Bldg. #5 (Ag Chelate)		
0266	HAMP-OL 4.5% IRON	2
Plant 2 - Bldg. #8		
0817	IDANa2	3
0817 (Lima)	IDANa2 (saponification only)	22
0100	HAMP-ENE	22
0805	Sarcosine	6
0805	Sarcosine (saponification only)	12
Plant 3 - Bldg. #15		
0195	PDTA	6
0810	IDAN	7
0818	IDA Acid	7
0831/0832	GLYCINE Acid (half-batches only based on batch-receipt size of current equipment)	6
0831/0832	GLYCINE Acid (saponification only)	6
Plant 4 - Bldg. #18		
0849/0850	Isophorone Nitrile (IPN)	14

**Table 4A - State-only Enforceable Operational & Emissions Limitations
Maximum Batch Production for Each Production Plant Operation**

PHASE II - Liquor Recovery	Note: The ammonia recovery process was moved to Plant 1. See August 14, 2000 letter from Hampshire Chemical Corp. to DES concerning shutdown of the Calcium Sulfate Dryer and discontinuing operation of the Phase II Ammonia Recovery and movement of it to Plant 1 at two batches per day.	
26 BAUME NH3 (0945)		1
AMMONIA SYSTEM		continuous
HCN RAILCAR WASH		1
STORAGE TANKS		
TA-45-120	HCN	1
TA-03-101	DETA	1
TA-03-102	AEEA	1
TA-03-103	EDA	1
TA-03-104	EDA	1
TB-03-119	CH2O	3
TA-03-177	PCL3	1
TA-03-190	MMA	1
TA-05-175	HNO3	1
TA-08-121	PDA	2
TA-08-158	CH2O	6
TA-18-110	IPH	1
TA-45-101	HCN	1

VIII. B. Federally Enforceable Operational and Emission Limitations

The Permittee shall be subject to the Facility wide operational and emission limitations identified in Table 5 below.

Table 5 - Federally Enforceable Operational and Emission Limitations			
Item #	Regulatory Cite	Applicable Emission Unit	Applicable Requirement
1.	40 CFR 52 ²	Facility Wide	Gaseous fuel shall contain no more than 5 grains of sulfur per 100 cubic feet of gas, calculated as hydrogen sulfide at standard temperature and pressure.
2.	40 CFR 52 ³	Facility Wide	The sulfur content of No. 6 fuel oil shall not exceed 2 percent sulfur by weight.
3.	40 CFR 52 ⁴	Facility Wide	The sulfur content of No. 2 fuel oil shall not exceed 0.4 percent sulfur by weight.
4.	TP-B-0172	Boilers A, B, C, D, & Hot Oil Heater	SO ₂ emissions from these devices shall be less than 409 tons per year and subject to a 365 day rolling total of fuel oil burned for Boilers A, B, C, D, and the Hot Oil Heater combined not to exceed 2,575,000 gallons of No. 6 fuel oil with a maximum sulfur content of 2.0% by weight or equivalent amount at a lower sulfur content or equivalent amount of No. 2 fuel oil with a maximum sulfur content of 0.4% by weight, as part of the PSD avoidance for the Boiler D initial Temporary Permit.
5.	Env-A 1204.27(d)(2)	Facility Wide	<p>VOC emissions from miscellaneous or multi-category stationary VOC sources shall be controlled using Control Option 1 at the Hampshire Chemical Corp. Facility, as described below:</p> <p>For the purpose of this paragraph, the following definitions shall apply:</p> <p>a. "Facility-wide uncontrolled emissions" means all uncontrolled VOC emissions from non-exempt core devices and processes;</p> <p>b. "Facility-wide controlled emissions" means the sum of the controlled emissions from all VOC-emitting devices and processes utilizing (a) capture and control system(S).</p> <p>(2) Control option 1 shall consist of the installation and operation of capture and control systems that result in facility-wide reduction in the actual uncontrolled VOC emission rate to the atmosphere, calculated on a daily basis, of at least 81%, as determined by dividing the difference between the facility-wide uncontrolled emissions and the facility-wide controlled emissions by the facility-wide uncontrolled emissions.</p>

² Env-A 402.03, effective on December 27, 1990, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

³ Env-A 402.02(c), effective on December 27, 1990, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

⁴ Env-A 402.02(a), effective on December 27, 1990, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

Table 5 - Federally Enforceable Operational and Emission Limitations

6.	Env-A 1211.02(i) and Env-A 1211.02(j)	EG140 & EG175	Each emergency generator shall be limited to less than 500 hours of operation during any consecutive 12-month period and the combined theoretical potential emissions of NOx from all such generators if operated for 500 hours each during a consecutive 12-month period are limited to less than 25 tons for any consecutive 12-month period. If either of these conditions is exceeded then the emergency generators shall be subject to Env-A 1211.11.
7.	Env-A 2003.01 40 CFR 52 ⁵ (streamlining)	BlrA, BlrB, CKiln, Plt2K, & Plt1K	No owner or operator shall cause or allow average opacity from fuel burning devices installed on or prior to May 13, 1970 in excess of 40 percent for any continuous 6 minute period in any 60 minute period.
8.	Env-A 2003.02 40 CFR 52 ⁶ (streamlining)	BlrC, BlrD, HOHtr, Plt3EK, Plt3FD, NaSO4FD, IPNBtr, EG140, & EG175	No owner or operator shall cause or allow average opacity from fuel burning devices installed after May 13, 1970 in excess of 20 percent for any continuous 6 minute period in a 60 minute period.
9.	Env-A 2003.04(c) 40 CFR 52 ⁷ (streamlining)	BlrA, BlrB, BlrC, BlrD, HOHtr, CKiln, Plt3EK, Plt2K, Plt3FD, NaSO4FD, Plt1K, & IPNBtr	The average opacity shall be allowed to be in excess of those standards specified in Env-A 2003.01 and Env-A 2003.02 for one period of 6 continuous minutes in any 60 minute period during startup, shutdown, malfunction, soot blowing, grate cleaning, and cleaning of fires.

⁵ Env-A 1202.01, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

⁶ Env-A 1202.02, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

⁷ Env-A 1202.04(a), effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

Table 5 - Federally Enforceable Operational and Emission Limitations

10.	Env-A 2003.06 40 CFR 52 ⁸ (streamlining)	BlrA & BlrB	<p>No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or prior to May 13, 1970 in excess of the rates set forth below, where:</p> <p>"E" means the maximum allowable particulate matter emission rate in lb/10⁶ BTU; and</p> <p>"I" means the maximum gross heat input rate in 10⁶ BTU/hr.</p> <p>(1) For devices with I less than 10, E shall be equal to 0.60;</p> <p>(2) For devices with I equal to or greater than 10 but less than 10,000, E shall be calculated by raising I to the -0.166 power, and multiplying the result by 0.880, expressed mathematically in the formula below: $E = 0.880 I^{-0.166}$</p> <p>(3) For devices with I equal to or greater than 10,000, E shall be equal to 0.19.</p>
11.	Env-A 2003.07 40 CFR 52 ⁹ (streamlining)	BlrC & HOHtr	<p>No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed after May 13, 1970 but before January 1, 1985 in excess of the rates set forth below, where:</p> <p>"E" means the maximum allowable particulate matter emission rate in lb/10⁶ BTU;</p> <p>"I" means the maximum gross heat input rate in 10⁶ BTU/hr;</p> <p>(1) For devices with I less than 10, E shall be equal to 0.60;</p> <p>(2) For devices with I equal to or greater than 10 but less than 250, E shall be calculated by raising I to the -0.234 power, and multiplying the result by 1.028, expressed mathematically in the formula below: $E = 1.028 I^{-0.234}$</p> <p>(3) For devices with I equal to or greater than 250, E shall be equal to 0.10.</p>

⁸ Env-A 1202.05, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

⁹ Env-A 1202.06, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

Table 5 - Federally Enforceable Operational and Emission Limitations

12.	Env-A 2003.08 40 CFR 52 ¹⁰ (streamlining)	BlrD	<p>No owner or operator shall cause or allow emissions of particulate matter from fuel burning devices installed on or after January 1, 1985, in excess of the rates set forth below, where:</p> <p>"E" means the maximum allowable particulate matter emission rate in lb/10⁶ BTU;</p> <p>"I" means the maximum gross heat input rate in 10⁶ BTU/hr;</p> <p>(1) For devices with I less than 100, E shall be equal to 0.30;</p> <p>(2) For devices with I equal to or greater than 100 but less than 250, E shall be equal to 0.15; or</p> <p>(3) For devices with I equal to or greater than 250, E shall be equal to 0.10.</p>
13.	Env-A 2107.01(a) 40 CFR 52 ¹¹ (streamlining)	Facility Wide	<p>Unless otherwise specified in Env-A 2100, no person shall cause or allow visible fugitive emissions or visible stack emissions for any process, manufacturing or serviced-based industry subject to this chapter to exceed an average of 20 percent opacity for any continuous 6-minute period in any 60 minute period, except where opacity is specified differently for fuel burning devices in Env-A 2003.</p>

¹⁰ Env-A 1202.07, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

¹¹ Env-A 1203.05, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

Table 5 - Federally Enforceable Operational and Emission Limitations

14.	Env-A 2103.01 40 CFR 52 ¹² (streamlining)	Plant 3 Product Baghouses FA- 15-043, FB-15- 020, & FA-15- 018	<p>(A) For any source or device installed after February 18, 1972 and utilized at a process, manufacturing or service-based industry, no person shall cause or allow the emission of particulate matter at such source or device to exceed those emission standards specified for “New Devices” as listed in Table 2103-1, below; and</p> <p>(B) For any source or device installed prior to or on February 18, 1972 and utilized at a process, manufacturing or service-based industry, no person shall cause or allow the emission of particulate matter at such source or device to exceed those emission standards specified for “Existing Devices” as listed in Table 2103-1 below:</p>		
			Process Weight Rate (lb/hr)	Emission Standard “New Devices” (lb/hr)	Emission Standard “Existing Devices” (lb/hr)
			50	0.36	0.43
			100	0.55	0.68
			500	1.53	1.99
			1,000	2.58	3.17
			5,000	7.58	9.35
			10,000	12.0	14.85
			20,000	19.2	23.62
			60,000	40.0	49.31
			80,000	42.5	51.03
			120,000	46.3	55.55
			160,000	49.0	58.88
			200,000	51.2	61.53
			1,000,000	69.0	82.75
			2,000,000	77.6	93.11

¹²

Env-A 1203.02, effective on September 14, 1992, was adopted as part of the State Implementation Plan (SIP) on September 14, 1992, and is still considered federally enforceable until such time as the SIP is amended and approved by the EPA.

Table 5 - Federally Enforceable Operational and Emission Limitations

15.	40 CFR 68	Facility Wide	<p>Storage of the following chemicals: formaldehyde; monomethylamine; hydrocyanic acid; ethylenediamine; anhydrous ammonia; aqueous ammonia; and phosphorous trichloride, are above the applicable threshold quantities presented in 40 CFR 68.130 Table 1 and Table 2. The facility, therefore, is subject to the program requirements of 40 CFR 68 and submitted a Risk Management Plan on June 11, 1999 (facility RMP ID# is 1000-0002-8588).</p> <p>For those substances which are stored below the threshold quantities specified in 40 CFR 68.130 Tables 1 & 2, the Purpose and General Duty clause of Section 112(r)(1) of the 1990 Clean Air Act shall apply as follows:</p> <p>“The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654, title 29 of the United States Code, to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. For purposes of this paragraph, the provisions of section 304 shall not be available to any person or otherwise be construed to be applicable to this paragraph. Nothing in this section shall be interpreted, construed, implied or applied to create any liability or basis for suit for compensation for bodily injury or any other injury or property damages to any person which may result from accidental releases of such substances.”</p>
16.	40 CFR 82 (Stratospheric Ozone Protection)	See Table C1 in Appendix C	<p>(a) Owners of equipment with charges of ozone depleting substances greater than 50 pounds are required to repair substantial leaks. A 35 percent annual leak rate is established for the industrial process and commercial refrigeration sectors as the trigger for requiring repairs. An annual leak rate of 15 percent of charge per year is established for comfort cooling chillers and all other equipment with a charge of over 50 pounds other than industrial process and commercial refrigeration equipment.</p> <p>(b) Technicians servicing appliances that contain 50 or more pounds of refrigerant must provide the owner with an invoice that indicates the amount of refrigerant added to the appliance. In addition, technicians must be certified and keep a copy of their proof of certification at their place of business.</p> <p>(c) Owners of air-conditioning and refrigeration equipment with more than 50 pounds of charge must keep records of the quantity of refrigerant added to their equipment during servicing and maintenance procedures and the date and type of service rendered to the equipment.</p>

VIII. C. Emission Reductions Trading Requirements

The Permittee did not request emissions reduction trading in its operating permit application. At this point, DES has not included any permit terms authorizing emissions trading in this permit. All emission reductions trading, must be authorized under the applicable requirements of either Env-A 3000 (the “Emissions Reductions Credits (or ERCs) Trading Program”) or Env-A-3100 (the “Discrete Emissions Reductions (or DEC)s Trading Program) and 42 U.S.C. §7401 et seq. (The “Act”), and must be provided for in this permit.

VIII. D. Monitoring and Testing Requirements

The Permittee is subject to the federally enforceable monitoring and testing requirements as contained in Table 6 and periodic monitoring and testing for scrubbers/condensers as contained in Table 6-A:

Table 6 - Monitoring/Testing Requirements					
Item #	Emission Unit ID	Parameter	Method of Compliance	Frequency of Method	Regulatory Cite
1.	Facility Stacks and Boilers	Allows for adequate dispersion of HAPs and other regulated pollutants	Conduct an annual inspection of each stack and fuel burning device. Inspections shall include documenting any leaks, holes, rusting and/or disrepair of stacks, and the manufacturer's recommended periodic physical, mechanical, and electrical system checks for the fuel burning equipment. Records of inspections and subsequent maintenance conducted as a result of the annual inspections shall be kept on file at the Facility for review by the DES and/or EPA upon request.	Annually	Env-A 806.01(a) Federally Enforceable
2.	BlrA, BlrB, BlrC, BlrD, and HOHtr	Boiler Tune-ups (NOx RACT Compliance)	Annually, before April 1st of each year, the permittee shall perform an efficiency test using the test procedures specified in ASME/ANSI Boiler Test Code 4.1 and adjust the combustion process of the boiler in accordance with the procedures specified in Chapter 5, Combustion Efficiency Tables, Taplin, Harry R., Fairmont Press, 1991.	Annually, before April 1st	Env-A 1211.05(b)(1) Federally Enforceable
3.	Facility Wide	Fuel Sulfur Content Verification	The operator shall conduct testing using the appropriate ASTM method or retain certified delivery tickets provided by the supplier which contain sulfur content of the delivered fuel oil. Sulfur contents documented on delivery tickets shall be obtained using appropriate ASTM Methods. Copies of fuel oil delivery receipts provided by the supplier shall be retained for a period of 5 years for review by the DES, upon request.	For each delivery	Env-A 809 State-only Enforceable & 40 CFR 70.6(a)(3) Federally Enforceable
4.	Facility Wide	Opacity Measurement	Opacity measurements shall be conducted following the procedures set forth in 40 CFR Part 60, Appendix A, Method 9, VISUAL DETERMINATION OF THE OPACITY OF EMISSIONS FROM STATIONARY SOURCES. The opacity measurements shall be taken over 60 minutes during normal operation of the device.	During annual NOx RACT Tune-ups	Env-A 810.03 Federally Enforceable

Table 6 - Monitoring/Testing Requirements

5.	FA-15-043 & FB-15-020 Plant 3 Product Baghouses; and FA-15-018 Plant 3 Na ₂ SO ₄ Baghouse	Total Suspended Particulate Control	<p>(A) Install pressure differential gauges on baghouses during the first 18 months time after permit issuance and establish a pressure differential range representative of normal daily Baghouse operations and in accordance with manufacturers recommended operating parameters. Keep record of differential pressure ranges for each baghouse in the permanently bound preventative maintenance logbook for the baghouses. Pressure differentials may be changed provided the permittee submits a written request to the DES and the DES approves such a change. Such changes may be the result of process optimization or a manufacturers recommendation.</p> <p>(B) Conduct the following daily monitoring of each baghouse system: 1) pressure differential of each unit; and 2) visible emission (VE) check of each unit as specified in (C).</p> <p>(C) In accordance with Method 22, the person performing the VE check shall stand at a distance of at least 15 feet which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140 degree sector at his/her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks are in proximity to each other. The visible emission check shall be conducted for at least one continuous minute of time.</p> <p>(D) The permittee shall retain a record of daily visible emissions determinations and differential pressures for each baghouse in a daily, permanently bound logbook, noting in the logbook when a unit is not in operation or other conditions which prevented the daily monitoring to be completed.</p> <p>(E) When a VE determination shows a visible emission, a qualified operator shall determine the cause of the excursion and correct the problem in the most expedient manner possible. The permittee shall note the cause of the excursion, the pressure drop, any other pertinent operating parameters, and the corrective action taken in the maintenance log.</p> <p>(F) If the problem detected is not corrected within 24 hours, report as a deviation in the semiannual report.</p> <p>(G) Permittee shall develop a preventative maintenance program with the following minimum requirements:</p> <ol style="list-style-type: none"> 1. Specify pressure differential range for each baghouse in the permanently bound preventative maintenance logbook. 2. Daily Check: <ol style="list-style-type: none"> a. Visually check the pressure differential b. Visually inspect compressed air/reversed air system c. Visually inspect hopper/screw conveyor 3. Record findings and corrective action in the daily, permanently bound, maintenance logbook. 	Daily VE and Diff. Press. Check and Prevent. Maint. as specified when operating	40 CFR 70.6(a)(3) Federally Enforceable
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Table 6-A Periodic Monitoring Requirements

Vent ID#	Control Eqmt. ID#	Control Device Description	Monitored Parameter	Type of Instrument to Measure	Frequency & Method of Monitoring/Recording	Frequency & Method of Monitoring/Recording	Operating Range
					Phase I (First 18 months after issuance of Permit)	Phase II (Begins 18 months after Permit Issuance)	Phase III (Begins 3 years after Permit Issuance)
B02-TN-01		Plant 1 Ammonia Scrubber System	Operational Status of VA-03-073, TA-02-172, & FA-02-072	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the packed column once per shift. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant 1 Ammonia Scrubber System Operating Ranges are listed below for each component
	VA-03-073	Primary Surge Tank	NH3 Concentration in Tank	Specific Gravity Meter	Monitor and record specific gravity once per shift.	Monitor specific gravity and continuously record. Establish proper operating range for the equipment in accordance with equipment manufacturer's specifications.	< 14% NH3 concentration Unless otherwise determined during Phase II.
	VA-03-073	Primary Surge Tank	Liquid Temp. in Tank	Temperature Transmitter	Monitoring device to be installed during Phase I.	Monitor temperature and continuously record. Establish proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum of 50 degrees C Unless otherwise determined during Phase II.
	TA-02-172	Secondary Scrubber Tank	Liquid Temp. in Tank	Temperature Transmitter	Monitoring device to be installed during Phase I.	Monitor temperature and continuously record. Establish proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum of 30 degrees C Unless otherwise determined during Phase II.
	FA-02-072	Final Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor the flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 0.5 gpm Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

B02-TN-04		26 Baume Ammonia Scrubber	Operational Status of MA-02-015 & VA-02-015	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi. Conduct a visual inspection of the flow to the packed column once per shift during Baume production. Record results of the inspections once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	26 Baume Ammonia Scrubber Operating Ranges are listed below for each component
	MA-02-015	Anhydrous Venturi (Continuous operation)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VA-02-015	Packed Column (Operated only during Baume batches.)	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 0.5 gpm Unless otherwise determined during Phase II.
B03-PN-17		Shampoo Process Scrubber To be replaced in third quarter 2001 with two new scrubbers for the #4 and #5 Reactors and Hold Tanks	Operational Status of MA-03-057, MB-03-057, & VB-03-076	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Shampoo Process Scrubber Operating Ranges are listed below for each component
	MA-03-057	Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA

Table 6-A Periodic Monitoring Requirements

	MB-03-057	Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA
	VB-03-076	Packed Column	Liquid Flow	Flow Meter	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA - To be shut down in third quarter 2001 and two new scrubber systems for the #4 and #5 Reactors and Hold Tanks will be installed	NA
B03-PN-46		#5 Reactor and #5 Hold Tank Scrubber	Operational Status of MA-03-232, MB-03-232, & FA-03-232	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	#5 Reactor and #5 Hold Tank Scrubber Operating Ranges are listed below for each component
	MA-03-232	Primary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-03-232	Secondary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	FA-03-232	Final Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow = TBD gpm

Table 6-A Periodic Monitoring Requirements

B03-PN-45		#4 Reactor and #4 Hold Tank Scrubber	Operational Status of MA-03-230, MB-03-230, & FA-03-230	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	#4 Reactor and #4 Hold Tank Scrubber Operating Ranges are listed below for each component
	MA-03-230	Primary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-03-230	Secondary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	FA-03-230	Final Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow = TBD gpm
B03-PN-39	VC-03-215	Evaporator Vacuum Seal Tank (Batch operation, only when IPA is used in production)	Chilled Seal Water Temperature	Temperature Transmitter	Monitor temperature and record once per shift.	Monitor temperature and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum seal water temperature of 30 degrees C

Table 6-A Periodic Monitoring Requirements

B03-PN-40		Plant #1 Multipurpose Amines Scrubber	Operational Status of MC-03-092, MD-03-092, VA-03-092, MA-03-058, & FA-03-058	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to each venturi and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #1 Multipurpose Amines Scrubber Operating Ranges are listed below for each component
	MC-03-092	HCN Seal Tank Premix Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MD-03-092	HCN Seal Tank Reactor Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VA-03-092	HCN Seal Tank	NaOH Concentration	NA	Refer to Standard Operating Procedures for each batch product.	Replenish scrubber tank contents with fresh sodium hydroxide as specified by the process Standard Operating Procedure	NA
	MA-03-058	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	FA-03-058	Final Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquor flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 1.0 gpm Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

B03-TN-01		Plant #1 Formaldehyde Scrubber	Operational Status of MC-03-119 & FC-03-119	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #1 Formaldehyde Scrubber Operating Ranges are listed below for each component
	MC-03-119	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	FC-03-119	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 2.0 gpm Unless otherwise determined during Phase II.
B03-TN-05		PCL3 Scrubber	Operational Status of MA-03-148 & VB-03-148	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	PCL3 Scrubber Operating Ranges are listed below for each component
	MA-03-148	Venturi Scrubber (Batch operation during tank wagon unloading)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Visual Check during each tank wagon unload. Record results of the inspection for each tank wagon unloaded.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Minimum flow of TBD gpm Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

	VB-03-148	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 2.0 gpm Unless otherwise determined during Phase II.
B03-TN-19		IPA Scrubber	Operational Status of MA-03-106 & MB-03-106	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis. Record results of the inspection once per shift. (Only operating when production is using IPA.)	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	IPA Scrubber Operating Ranges are listed below for each component
	MA-03-106	Venturi Scrubber (Batch operation - only when IPA is used in production.	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-03-106	Venturi Scrubber (Batch operation - only when IPA is used in production.	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
B05-TN-01		HNO ₃ Storage Tank Venturi Scrubber	Operational Status of MA-05-175	NA	Conduct a visual inspection of the scrubber system during each tank wagon unloading to ensure water is flowing to the venturi. Record the results of the inspection for each tank wagon unloaded.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	HNO ₃ Storage Tank Venturi Scrubber Operating Ranges are listed below for each component

Table 6-A Periodic Monitoring Requirements

	MA-05-175	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
B08-PN-04		Plant #2 HCN Scrubber (Currently not in operation)	Operational Status of MA-08-033	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #2 HCN Scrubber Operating Ranges are listed below for each component
	MA-08-033	Venturi Scrubber (Dilute NaOH solution)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
B08-PN-09		Plant #2 Ammonia Scrubber System	Operational Status of MA-08-087, VA-08-056, & VA-08-075	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the absorber and packed column, and check the NH ₃ concentration reading in the primary absorber tank. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #2 Ammonia Scrubber System Operating Ranges are listed below for each component
	MA-08-087	Primary Absorber	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 500 gpm Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

	VA-08-056	Primary Absorber Tank	Ammonia Concen.	Specific Gravity Meter	Monitor and record specific gravity once per shift. Monitoring device to be installed during Phase I.	Monitor specific gravity and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	< 14% NH ₃ concentration Unless otherwise determined during Phase II.
	VA-08-075	Secondary Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 0.5 gpm Unless otherwise determined during Phase II.
B08-TN-06		Plant #2 Multipurpose Scrubber	Operational Status of MA-08-150 & VA-08-150	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi and packed column. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #2 Multipurpose Scrubber Operating Ranges are listed below for each component
	MA-08-150	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VA-08-150	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 1.0 gpm Unless otherwise determined during Phase II.
B08-PN-23	MA-08-037	Plant #2 Formaldehyde Scrubber Venturi Scrubber (Currently not in operation.)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to venturi. Record results of the inspection once per shift.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm

Table 6-A Periodic Monitoring Requirements

B10-PN-06	VA-10-025	Semi-Works Facility Packed Column Scrubber	Liquid Flow	Flow transmitter	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the packed column. Record results of the inspection once per shift.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 8.0 gpm Unless otherwise determined during Phase II.
B10-PN-06 B10-PN-39	HA-10-014	Semi-Works Facility Portable Condenser	Temperature	Temperature Transmitter	Conduct a visual inspection of the condenser once per shift and ensure water is flowing. Record results of the inspection once per shift.	Monitor the temperature of the brine at the outlet of the condenser and record continuously. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum outlet temperature of brine at 20 degrees C
B10-PN-06 B10-PN-39	HA-10-052	Semi-Works Facility Portable Condenser	Temperature	Temperature Transmitter	Conduct a visual inspection of the condenser once per shift and ensure water is flowing. Record results of the inspection once per shift.	Monitor the temperature of the brine at the outlet of the condenser and record continuously. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum outlet temperature of brine at 20 degrees C
B10-PN-40	NA-10-023	Liquid Ring Vacuum Pump	Pressure	Pressure indicator at water inlet	Conduct visual inspection of water pressure and record once per shift.	Monitor pressure at water inlet and record continuously. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Greater than or equal to atmospheric pressure Pressure = TBD
B10-PN-39	NA-10-039	Liquid Ring Vacuum Pump	Liquid Flow	Flow Indicator	Conduct visual inspection of water flow and record once per shift.	Monitor water flow and record continuously. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 10.0 gpm Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

B15-PN-09		Plant #3 Ammonia Scrubber System	Operational Status of FB-15-011, VA-15-011, & FA-15-011	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi and packed column, and check the NH3 concentration in the scrubber tank. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #3 Ammonia Scrubber System Operating Ranges are listed below for each component
	FB-15-011	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VA-15-011	Scrubber Tank	NH3 Concentration in Tank	Specific Gravity Meter	Monitor and record specific gravity once per shift.	Monitor specific gravity and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	< 14% NH3 Concentration Unless otherwise determined during Phase II.
	FA-15-011	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 1.0 gpm Unless otherwise determined during Phase II.
B15-PN-11		Plant #3 HCN Seal Tank Scrubber	Operational Status of MA-15-035, MB-15-035, & VA-15-007	NA	Conduct visual inspection of the scrubber system once per shift and ensure there is water flow to the venturis. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #3 HCN Seal Tank Scrubber Operating Ranges are listed below for each component

Table 6-A Periodic Monitoring Requirements

	MA-15-035	Venturi Scrubber (Batch operation during PDTA or Glycine runs)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-15-035	Venturi Scrubber (Batch operation during PDTA or Glycine runs)	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VA-15-007	Seal Tank	NaOH Concentration	NA	Refer to Standard Operating Procedures for each batch product.	Replenish scrubber tank contents with fresh sodium hydroxide as specified by the process standard operating procedure.	
B15-TN-03		Plant #3 Tank Farm Multipurpose Scrubber	Operational Status of MA-15-114, MB-15-114, & VA-15-114	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis and packed column. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant #3 Tank Farm Multipurpose Scrubber Operating Ranges are listed below for each component
	MA-15-114	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-15-114	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm

Table 6-A Periodic Monitoring Requirements

	VA-15-114	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 1.0 gpm Unless otherwise determined during Phase II.
B15-TN-05		Liquor Storage Scrubber	Operational Status of MA-15-104, MB-15-104, & TA-15-004	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturis. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Liquor Storage Scrubber Operating Ranges are listed below for each component
	MA-15-104	Primary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-15-104	Secondary Venturi	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	TA-15-104	Scrubber Tank	Temperature	Temperature Transmitter	Monitoring device to be installed during Phase I.	Monitor temperature of scrubbing media and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Maximum Temperature of 30 degrees C. Unless otherwise determined during Phase II.

Table 6-A Periodic Monitoring Requirements

B18-PN-02		Plant 4 Process Scrubber	Operational Status of MA-18-002 & VB-18-002	NA	Conduct a visual inspection of the scrubber system once per shift and ensure water is flowing to the venturi and packed column. Record the results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant 4 Process Scrubber Operating Ranges are listed below for each component
	MA-18-002	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	VB-18-002	Packed Column	Liquid Flow	Flow Meter	Monitoring device to be installed during Phase I.	Monitor liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Minimum flow of 1.0 gpm Unless otherwise determined during Phase II.
B18-TN-01		Plant 4 Effluent Scrubber	Operational Status of MA-18-101 & MB-18-101	NA	Conduct a visual inspection of the scrubber system once per shift and ensure there is water flowing to the venturis. Record results of the inspection once per shift.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	Plant 4 Effluent Scrubber Operating Ranges are listed below for each component
	MA-18-101	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm

Table 6-A Periodic Monitoring Requirements

	MB-18-101	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
B45-TN-01		South End HCN Storage Scrubber	Operational Status of MA-45-115 & TA-45-115(2)	NA	Conduct a visual inspection of the scrubber system during the railcar unloading ensuring there is water flowing to the venturi and it is pulling a vacuum. Record results of the inspection after each railcar is unloaded.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	South End HCN Storage Scrubber Operating Ranges are listed below for each component
	MA-45-115	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring devices installed. Monitor and record pressure and flow once per shift and record.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	TA-45-115	Scrubber Tank	NaOH Concentration	Sample analysis	Sample contents of scrubber tank and analyze for free NaOH prior to each railcar unloading, following the railcar unloading standard operating procedure. Record the date, time, and % NaOH. Make note in log book when any test below 10% and when scrubbing solution was replaced.	Sample contents of scrubber tank and analyze for free NaOH prior to each railcar unloading, following the railcar unloading standard operating procedure. Record the date, time, and % NaOH. Make note in log book when any test below 10% and when scrubbing solution was replaced.	Minimum of 10.0% NaOH
	TA-45-115	Scrubber Tank	Temperature	Temperature Transmitter	Monitoring device to be installed during Phase I.	Monitor temperature during railcar unloading and continuously record.	Max. Temp. = 40 degrees C

Table 6-A Periodic Monitoring Requirements

B45-TN-02		North End HCN Storage Scrubber	Operational Status of MA-45-187, MB-45-187, & TA-45-187(2)	NA	Conduct a visual inspection of the scrubber system during the railcar unloading ensuring there is water flowing to the venturis. Record results of the inspection after each railcar is unloaded.	Continue Phase I monitoring & recording until equipment is installed & operational, then conduct the monitoring/recording listed below for each component	North End HCN Storage Scrubber Operating Ranges are listed below for each component
	MA-45-187	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitoring device to be installed during Phase I.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	MB-45-187	Venturi Scrubber	Negative Pressure & Liquid Flow	Pressure Transmitter & Flow Meter	Monitor pressure and flow once per shift and record.	Monitor pressure and liquid flow and continuously record. Establish the proper operating range for the equipment in accordance with equipment manufacturer's specifications.	Neg. Press. = Pulling a Vac. Min. Flow = TBD gpm
	TA-45-187	Scrubber Tank	NaOH Concentration	Sample analysis	Sample contents of scrubber tank and analyze for free NaOH prior to each railcar unloading, following the railcar unloading standard operating procedure. Record the date, time, and % NaOH. Make note in log book when any test below 10% and when scrubbing solution was replaced.	Sample contents of scrubber tank and analyze for free NaOH prior to each railcar unloading, following the railcar unloading standard operating procedure. Record the date, time, and % NaOH. Make note in log book when any test below 10% and when scrubbing solution was replaced.	Minimum of 10.0% NaOH
	TA-45-187	Scrubber Tank	Temperature	Temperature Transmitter	Monitoring device to be installed during Phase I.	Monitor temperature during railcar unloading and continuously record.	Max. Temp. = 40 degrees C

Table 6-A Periodic Monitoring Requirements							
B15-PN-18	FA-15-018	Plant 3 Na ₂ SO ₄ Product Baghouse	Pressure Differential, Visual Emissions	Differential Pressure Sensors	Monitoring device to be installed during Phase I. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Monitor differential pressure (pressure drop) across the bags and continuously record. Establish proper operating range following manufacturer's specifications. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Differential Pressure = TBD, No Visible Emissions
B15-PN-19	FA-15-020	Plant 3 Product Baghouse	Pressure Differential, Visual Emissions	Differential Pressure Sensors	Monitoring device to be installed during Phase I. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Monitor differential pressure (pressure drop) across the bags and continuously record. Establish proper operating range following manufacturer's specifications. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Differential Pressure = TBD, No Visible Emissions
	FA-15-043	Plant 3 Product Baghouse	Pressure Differential, Visual Emissions	Differential Pressure Sensors	Monitoring device to be installed during Phase I. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Monitor differential pressure (pressure drop) across the bags and continuously record. Establish proper operating range following manufacturer's specifications. Perform daily visible emissions check and daily inspections as detailed in Table 6, Item 5 and record in a permanently bound logbook.	Differential Pressure = TBD, No Visible Emissions

Table 6-A Notes:

1. Hampshire Chemical Corp. (HCC) plans to institute periodic monitoring in three Phases beginning on the date of issuance of this Title V Operating Permit. HCC is in the process of equipment selection, vendor selection, procurement, installation, and upgrading of several pieces of monitoring devices plus data recording equipment. HCC has indicated it needs 18 months to complete this phase of work (i.e. by December 31, 2002). During this time period, denoted "Phase I", HCC will monitor the pollution control equipment as defined in the 6th column identified as Phase I.
2. Phase II begins 18 months after permit issuance, i.e., by December 31, 2002. Following installation of equipment, HCC needs an additional year and a half to bring the monitoring devices and data recorders in operation, establish data logging into the distributive process control systems at

the facility, and get all of the above mentioned systems fully operational, i.e., by June 30, 2004. In addition, the data collected will be analyzed to establish the proper operating ranges to be followed during Phase III of this implementation schedule. HCC needs to establish all operating parameter ranges by June 30, 2004 and submit this information to DES prior to that date. HCC will still be conducting periodic monitoring and testing as outlined in the column labeled Phase I, but will be getting equipment installed and operationally set up to be able to conduct the monitoring and testing as outlined in the column denoted Phase II. HCC will need to follow the procedures contained in Env-A 612.04 to include any newly established operating ranges or change any current operating ranges in this permit.

3. Three years after issuance of this permit, i.e., by June 30, 2004, HCC will operate all scrubber systems within the operating ranges specified following Phase II. During Phase III, or during Phase II if a pollution control system instrumentation installation, calibration, and operation are complete, performance testing will be required to test individual pollution control systems as described in Table 5 of this permit. New operating parameters may need to be re-established following performance testing. Any and all operating parameters that change as a result of the performance testing will require a minor permit amendment following the procedures as required by Env-A 612.04.
4. It should be noted that in reference to the term “continuously record”, Hampshire Chemical may comply with that requirement by using DES approved electronic or manual means, i.e., use of data loggers, strip chart recorders, or other manual devices (recorded at least hourly) or a combination thereof, to log data. The requirement to “continuously record” does not apply to periods of startup, shutdown, or during periods of maintenance repair or calibration.
5. TBD = To be determined.

VIII. E. Record keeping Requirements:

The Permittee shall be subject to the federally enforceable record keeping requirements identified in Table 7 below.

Table 7 - Applicable Record keeping Requirements				
Item #	Record keeping Requirement	Frequency of Record keeping	Applicable Emission Unit	Regulatory Cite
1.	The Permittee shall retain records of all required monitoring data, record keeping and reporting requirements and support information for items contained in Tables 5, 6, 6-A, 7, 8, and 9 for a period of at least 5 years from the date of the origination.	Retain for a minimum of 5 years	Facility wide	40 CFR 70.6(a)(3)(ii)(B) Federally Enforceable
2.	<p>The Permittee shall maintain records of monitoring and testing requirements as specified in Tables 6 and 6-A of this permit including:</p> <ul style="list-style-type: none"> (A) Preventative maintenance and inspection results for stacks and fuel burning devices; (B) Boiler tune-ups; (C) Fuel usage records for Boilers A, B, C, D, & HOHtr; (D) Certified fuel delivery tickets for sulfur content verification; (E) Opacity measurements from annual boiler tune-ups; (F) Baghouse daily VE, pressure differential checks, and inspection results; and (G) Performance Test results for items listed in Item 10. of Table 6. 	Maintain at facility at all times ready for inspection	Facility wide	40 CFR 70.6(a)(3)(ii)(B) Federally Enforceable
3.	The Permittee shall maintain permanent records indicating the dimensions and capacity (gallons) of each of the VOC storage vessels listed in Column 4 of this Item.	Permanent record, i.e., for the in-service life of the individual storage vessel	TB-03-119 TA-08-121 TA-08-152 TA-15-115 TA-18-110 TA-18-103 TA-18-104 TA-09-050 TA-09-441 TA-09-442	40 CFR 60 Subpart Kb 60.116b(b) Federally Enforceable

Table 7 - Applicable Record keeping Requirements

4.	<p>VOC Record keeping Requirements: For all applicable facilities and devices, the following information shall be recorded and maintained at the facility:</p> <p>(A) Facility information, including:</p> <ol style="list-style-type: none"> 1. Source name; 2. Source identification; 3. Physical address; and 4. Mailing address; <p>(B) Identification of each VOC-emitting device or process, except:</p> <ol style="list-style-type: none"> 1. Processes or devices associated exclusively with non-core activities, as defined in Env-A 1204.03; and 2. Processes or devices emitting only exempt VOCs. <p>(C) Operating schedule information for each VOC-emitting device or process identified in (B), above, including:</p> <ol style="list-style-type: none"> 1. Days of operation per calendar week during the normal operating schedule; 2. Hours of operation per day during the normal operating schedule and for a typical high ozone season day, if different from the normal operating schedule; and 3. Hours of operation per year under normal operating conditions; <p>(D) The following VOC emission data:</p> <ol style="list-style-type: none"> 1. Annual theoretical potential emissions, as determined in accordance with the applicable section(s) of Env-A 803, using the VOC content for the calculation year for each VOC-emitting device or process identified in (B), above, for: <ol style="list-style-type: none"> a. Each year, in tons per year; and b. A typical day during the high ozone season of each year, in pounds per day; 2. Actual VOC emissions from each VOC-emitting device or process identified in (B), above for: <ol style="list-style-type: none"> a. Each year, in tons per year; and b. A typical day during the high ozone season of each year, in pounds per day; 3. Estimated emissions method code; and 4. Applicable emission factors, if used to calculate emissions. <p>(E) The calculation of emission estimates pursuant to (D), above, for a typical high ozone season day shall be based on the mean of the parameters relating to operating and process rate conditions during the high ozone season.</p>	Daily and annually	Facility Wide	Env-A 901.06(a), (b), (c), & (d) Federally Enforceable

Table 7 - Applicable Record keeping Requirements

5.	<p>NOX Record keeping Requirements: For fuel burning devices and incinerators, including boilers, turbines, and internal combustion engines, the following information shall be recorded and maintained:</p> <p>(A) Facility information, including:</p> <ol style="list-style-type: none"> 1. Source name; 2. Source identification; 3. Physical address; 4. Mailing address; and <p>(B) Identification of fuel burning device or incinerator;</p> <p>(C) Operating schedule information for each fuel burning device or incinerator identified in (B), above, including:</p> <ol style="list-style-type: none"> 1. Days per calendar week during the normal operating schedule; 2. Hours per day during the normal operating schedule and for a typical ozone season day, if different from the normal operating schedule; and 3. Hours per year during the normal operating schedule; <p>(D) Type, and amount of fuel or waste burned, for each fuel burning device or incinerator, during normal operating conditions and for a typical ozone season day, if different from normal operating conditions, on an hourly basis in million Btu's per hour or, for incinerators, in tons per hour;</p> <p>(E) The following NOX emission data, including records of total annual emissions, in tons per year, and typical ozone season day emissions, in pounds per day, shall be maintained at the facility:</p> <ol style="list-style-type: none"> 1. Theoretical potential emissions for the calculation year for each fuel burning device or incineration unit; and 2. Actual NOX emissions for each fuel burning device or incineration unit. 	Daily and annually	Facility Wide	Env-A 901.08 Federally Enforceable
6.	<p>The permittee shall maintain records of NOx RACT Testing Results for the boilers in a permanently bound logbook containing the following information:</p> <ol style="list-style-type: none"> 1. The date(s) on which: <ol style="list-style-type: none"> a. The efficiency test was conducted; and b. The combustion process was last adjusted; 2. The name(s), title, and affiliation of the person(s) who: <ol style="list-style-type: none"> a. Conducted the efficiency test; and b. Made the adjustments; 3. The NOx emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made; 4. The CO emission concentration, in ppmvd, corrected to 15% oxygen, after the adjustments are made; and 5. The opacity readings. 	Maintain at facility at all times ready for inspection	Blr A, Blr B, Blr C, Blr D, and HOHtr	Env-A 1211.05(b)(2) Federally Enforceable

Table 7 - Applicable Record keeping Requirements

7.	<p>(A) Permittee shall keep records of the total gallons of fuel oil burned, by type, and per day, in Boilers A, B, C, D, and the Hot Oil Heater, and the combined total.</p> <p>(B) Permittee shall keep records of the total cubic feet of natural gas burned per day in Boilers A, B, C, D, and the Hot Oil Heater, by device, and combined total.</p> <p>(C) Permittee shall keep records of the total fuel oil burned, by type, or natural gas burned for each month and during any consecutive 365 day period.</p> <p>(D) Permittee shall keep records of the total of SO₂ emissions from Boilers A, B, C, D, and the Hot Oil Heater during any consecutive 365 day period.</p>	Daily and consecutive 365 day period	BlrA, BlrB, BlrC, BlrD, and HOHtr	TP-B-172 Federally Enforceable
8.	<p>(A) Records shall be kept by individual batch regarding the total quantities of all raw materials utilized in each process which are required to calculate emissions, verify applicability and compliance with all emission limitations, or to verify production capacities and quantities; and</p> <p>(B) Daily records of batch production, including the information required in (A) above shall be kept at the facility and used to calculate emissions. Daily production information shall be recorded either using manually generated batch run sheets or electronically using an internal accounting software program.</p>	Daily	Facility Wide	Env-A 901.04 Federally Enforceable

VIII. F. Reporting Requirements:

The Permittee shall be subject to the federally enforceable reporting requirements identified in Table 8 below.

Table 8 - Applicable Reporting Requirements				
Item #	Reporting Requirement	Frequency of Reporting	Applicable Emission Unit	Regulatory Cite
1.	<p>Annual Fuel Usage Report:</p> <p>(A) For Boilers A, B, C, D, and the Hot Oil Heater, the permittee shall submit the following information:</p> <ol style="list-style-type: none"> (1) Total gallons of fuel oil burned, by type, and per day, in Boilers A, B, C, D, and the Hot Oil Heater, and the combined total. (2) Total cubic feet of natural gas burned per day in Boilers A, B, C, D, and the Hot Oil Heater, by device, and combined total. (3) Total fuel oil burned, by type, or natural gas burned for each month and during any consecutive 365 day period. (4) The total of SO₂ emissions from Boilers A, B, C, D, and the Hot Oil Heater during any consecutive 365 day period. <p>(B) A summary, by fuel type, of total gallons and/or total cubic feet of natural gas for each fuel burning device for the calendar year.</p>	Annually (no later than April 15th of the following year)	Facility Wide	40 CFR 70.6 (a)(1) Federally Enforceable
2.	Prompt reporting of deviations from Permit requirements within 24 hours of such an occurrence by phone, e-mail, or fax in accordance with Section XXVIII. of this Permit.	Prompt reporting (ie; within 24 hours of an occurrence).	Facility Wide	40 CFR 70.6(a)(3)(iii) (B) Federally Enforceable
3.	<p>Summary report of monitoring and testing requirements shall be submitted every 6 months. All instances of deviations from Permit requirements must clearly be identified in such reports. All required reports must be certified by a responsible official consistent with section 70.5(d). The report shall contain a summary of the following information:</p> <ol style="list-style-type: none"> (A) Preventative maintenance and inspection results for stacks and fuel burning devices; (B) Summary report of fuel sulfur content certifications; (C) Summary report of annual boiler tuneups for Boilers A, B, C, D, and the Hot Oil Heater; (D) Permit deviations; and (E) Summary report of Performance Testing results for pollution control equipment at the facility. 	Every 6 months by July 31st and January 31st of each calendar year.	Facility Wide	40 CFR 70.6(a)(3)(iii) (A) Federally Enforceable

Table 8 - Applicable Reporting Requirements

4.	<p>VOC Reporting Requirements: All sources subject to the reporting requirements of this section shall submit the following information to the director in accordance with the schedule in Env-A 901.07(h):</p> <p>(A) Facility information, including:</p> <ol style="list-style-type: none"> 1. Source name; 2. Source identification; 3. Physical address; 4. Mailing address; and <p>(B) Identification of each device or process operating at the source identified in (A), above;</p> <p>(C) Operating schedule information for each device or process identified in (B), above, including such information for:</p> <ol style="list-style-type: none"> 1. A typical business day; and 2. A typical high ozone season day, if different from a typical business day; <p>(D) Total quantities of actual VOC and NOX emissions for the entire facility and for each device or process identified in (B), above, including:</p> <ol style="list-style-type: none"> 1. Annual VOC emissions, and 2. Typical high ozone season day VOC emissions. 	Annually (no later than April 15th of the following year)	Facility Wide	Env-A 901.07(b) Federally Enforceable
5.	<p>NOX Reporting Requirements: For fuel burning devices and incinerators, including boilers, turbines and engines, as well as asphalt plant dryers and miscellaneous sources, the owner or operator shall submit to the director, annually (no later than April 15th of the following year), reports of the data required by Condition VIII.E., Table 6, Item 6., including total annual quantities of all NOX emissions.</p>	Annually (no later than April 15th of the following year)	Facility Wide	Env-A 901.09(b)(1) Federally Enforceable
6.	<p><u>General Reporting Requirements.</u></p> <p>(a) The owner or operator of any stationary source, area source or device subject to Env-A 600 shall submit an annual emissions report.</p> <p>(b) The annual emissions report pursuant to (a) above, shall include the following information:</p> <ol style="list-style-type: none"> (1) The actual emissions of the stationary source, area source or device and the methods used in calculating such emissions in accordance with Env-A 704.02; (2) For process operations, all information in accordance with Env-A 903.02; (3) For combustion devices, all information in accordance with Env-A 903.03; and (4) The actual annual emissions speciated by individual regulated air pollutants, including a breakdown of VOC emissions by compound. <p>(c) Beginning with calendar year 1999, the annual emissions report pursuant to (a) above, shall be submitted to the division on or before April 15 of the following year. For calendar year 1999, the annual emissions report shall be submitted to the division on or before April 15, 2000.</p>	Annually (no later than April 15th of the following year)	Facility Wide	Env-A 907.01 Federally Enforceable

Table 8 - Applicable Reporting Requirements

7.	If the total annual benzene quantity from facility waste is less than 1 Mg/yr, then the owner or operator shall submit to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr or more. If the facility exceeds 10 megagrams per year of benzene waste generated, this Title V Permit will be reopened with the necessary regulatory citations added and any compliance plan required to bring the source in compliance with 40 CFR 61 Subpart FF.	As needed	Facility Wide South-Sump Oil Skimmer	40 CFR 61 Subpart FF § 61.357(b) Federally Enforceable
8.	Any report submitted to the DES and/or EPA shall include the certification of accuracy statement as outlined in Section XXI.B. of this Permit and shall be signed by the responsible official.	As specified	Facility wide	40 CFR 70.6(c)(1) Federally Enforceable
9.	Annual reporting of emission based fees and payment of emission based fees shall be conducted in accordance with Section XXIII of this Permit	As specified in Section XXIII	Facility wide	Env-A 704.03 Federally Enforceable
10.	Annual compliance certification shall be submitted in accordance Section XXI. A. of this Permit.	Annually, by April 15th of the following year.	Facility wide	40 CFR 70.6(c)(1) Federally Enforceable

VIII. G. Hazardous Organic NESHAP (HON) Requirements Applicable to Plant 4

Based on the production of isophorone nitrile in Plant 4, Plant 4 and some of the equipment therein are subject to certain requirements of 40 CFR 63 Subparts A, F, G, and H (the "HON Requirements"). A complete list of equipment for Plant 4 is available for review during normal business hours at the facility upon request. Four Tables (A1, A2, A3, and A4) identifying and categorizing certain Plant 4 equipment subject to regulation under 40 CFR 63 and specifying whether such equipment is subject to Subparts F and G of the HON Requirements are attached as Appendix A to this permit. It should also be noted that Table 3 - General Provisions Applicability to Subparts F, G, and H found in 40 CFR 63 Subpart F lists certain other applicable requirements of 40 CFR 63 Subpart A which may be applicable to Hampshire Chemical Corp., which may not have been included here in Table 9, but shall be incorporated by reference. The following table (Table 9) contains all of the federally enforceable requirements applicable to Plant 4:

Table 9 - HON Requirements for Plant 4			
Item No.	Regulatory Citation	Affected Units	Summary of Applicable Requirements
1.	40 CFR 63 Subpart A § 63.6(e) Startup, Shutdown, and Malfunction Plan	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(e) Operation and maintenance requirements.</p> <p>(1)</p> <p>(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section.</p> <p>(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.</p> <p>(2) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.</p> <p>(3) Startup, shutdown, and malfunction plan.</p> <p>(i) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under §63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit.</p> <p>(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.</p> <p>(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.</p>

Table 9 - HON Requirements for Plant 4

2.	40 CFR 63 Subpart A § 63.6(f) Compliance with non-opacity emission standards	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(f) Compliance with non-opacity emission standards</p> <p>(2) Methods for determining compliance.</p> <p>(i) The Administrator will determine compliance with non-opacity emission standards in this part based on the results of performance tests conducted according to the procedures in §63.7, unless otherwise specified in an applicable Subpart of this part.</p> <p>(ii) The Administrator will determine compliance with non-opacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in §63.6(e) and applicable Subparts of this part. §63.152(c)(2) of Subpart G specifies the use of monitoring data in determining compliance with Subpart G. This does not apply to Subpart H.</p> <p>(3) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.</p>
3.	40 CFR 63 Subpart A § 63.8 Monitoring Requirements	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(c) Operation and maintenance of continuous monitoring systems.</p> <p>(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.</p> <p>(i) The owner or operator of an affected source shall ensure the immediate repair or replacement of CMS parts to correct "routine" or otherwise predictable CMS malfunctions as defined in the source's startup, shutdown, and malfunction plan required by §63.6(e)(3). The owner or operator shall keep the necessary parts for routine repairs of the affected equipment readily available. If the plan is followed and the CMS repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under §63.10(d)(5)(i).</p> <p>(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records, manufacturing recommendations and specifications, and inspection of the CMS. Operation and maintenance procedures written by the CMS manufacturer and other guidance also can be used to maintain and operate each CMS.</p> <p>(2) All CMS shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. In addition, CEMS shall be located according to procedures contained in the applicable performance specification(s).</p> <p>(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under §63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.</p>

Table 9 - HON Requirements for Plant 4

4.	40 CFR 63 Subpart F § 63.100(b) Applicability and designation of source	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(b) The provisions of Subparts F, G, and H apply to chemical manufacturing process units that meet all the criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section:</p> <p>(1) manufacture as a primary product, one or more of the chemicals listed in Table 1 of this Subpart;</p> <p>(2) use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in Table 2 of this Subpart;</p> <p>(3) are located at a plant site that is a major source as defined in section 112(a) of the Act.</p> <p>The permittee is a major HAP source, satisfying condition (3); Plant 4 is the only chemical manufacturing unit at HCC which satisfies conditions (1) and (2); Subparts F, G, and H therefore are only applicable to devices at Plant 4.</p>
5.	40 CFR 63 Subpart F § 63.102 General Standards	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(a) Owners and operators of sources subject to this Subpart shall comply with the requirements of Subparts G and H of this part.</p> <p>(1) The provisions set forth in this Subpart F and Subpart G of this part shall apply at all times except during periods of start-up or shutdown (as defined in §63.101 of this Subpart), malfunction, or non-operation of the chemical manufacturing process unit (or specific portion thereof) resulting in cessation of the emissions to which this Subpart F and Subpart G of this part apply. However, if a start-up, shutdown, malfunction or period of non-operation of one portion of a chemical manufacturing process unit does not affect the ability of a particular emission point to comply with the specific provisions to which it is subject, then that emission point shall still be required to comply with the applicable provisions of this Subpart F and Subpart G of this part during the start-up, shutdown, malfunction or period of non-operation. For example, if there is an overpressure in the reactor area, a storage vessel in the chemical manufacturing process unit would still be required to be controlled in accordance with §63.119 of Subpart G of the part. Similarly, the degassing of a storage vessel would not affect the ability of a process vent to meet the requirements of §63.113 of Subpart G of this part.</p> <p>(2) The provisions set forth in Subpart H of this part shall apply at all times except during periods of start-up or shutdown, as defined in §63.101(b) of this Subpart, malfunction, process unit shutdown (as defined in §63.161 of Subpart H of this part), or non-operation of the chemical manufacturing process unit (or specific portion thereof) in which the lines are drained and depressurized resulting in cessation of the emissions to which Subpart H of this part applies.</p> <p>(3) The owner or operator shall not shut down items of equipment that are required or utilized for compliance with the provisions of this Subpart F, Subpart G or H of this part during times when emissions (or, where applicable, wastewater streams or residuals) are being routed to such items of equipment, if the shutdown would contravene requirements of this Subpart F, Subpart G or H of this part applicable to such items of equipment. This paragraph does not apply if the item of equipment is malfunctioning, or if the owner or operator must shut down the equipment to avoid damage due to a contemporaneous start-up, shutdown, or malfunction of the chemical manufacturing process unit or portion thereof.</p> <p>(4) During start-ups, shutdowns, and malfunctions when the requirements of this Subpart F, Subparts G and/or H of this part do not apply pursuant to paragraphs (a)(1) through (a)(3) of this section, the owner or operator shall implement, to the extent reasonably available, measures to prevent or minimize excess emissions to the extent practical. For purposes of this paragraph, the term "excess emissions" means emissions in excess of those that would have occurred if there were no start-up, shutdown, or malfunction and the owner or operator complied with the relevant provisions of this Subpart F, Subparts G and/or H of this part. The measures to be taken shall be identified in the applicable start-up, shutdown, and malfunction plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the source. Back-up control devices are not required, but may be used if available.</p>

Table 9 - HON Requirements for Plant 4

6.	40 CFR 63 Subpart F § 63.103 General Compliance, Reporting, & Record keeping	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	<p>(a) Table 3 of this Subpart specifies the provisions of Subpart A that apply and those that do not apply to owners and operators of sources subject to Subparts F, G, and H of this part.</p> <p>(b) Initial performance tests and initial compliance determinations shall be required only as specified in Subparts G and H of this part.</p> <p>(1) Performance tests and compliance determinations shall be conducted according to the schedule and procedures in §63.7(a) of Subpart A of this part and the applicable sections of Subparts G and H of this part.</p> <p>(2) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 calendar days before the performance test is scheduled to allow the Administrator the opportunity to have an observer present during the test.</p> <p>(3) Performance tests shall be conducted according to the provisions of §63.7(e) of Subpart A of this part, except that performance tests shall be conducted at maximum representative operating conditions for the process. During the performance test, an owner or operator may operate the control or recovery device at maximum or minimum representative operating conditions for monitored control or recovery device parameters, whichever results in lower emission reduction.</p> <p>(4) Data shall be reduced in accordance with the EPA-approved methods specified in the applicable Subpart or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part.</p> <p>(c) Each owner or operator of a source subject to Subparts F, G, and H of this part shall keep copies of all applicable reports and records required by Subparts F, G, and H of this part for at least 5 years; except that, if Subparts G or H require records to be maintained for a time period different than 5 years, those records shall be maintained for the time specified in Subpart G or H of this part. If an owner or operator submits copies of reports to the applicable EPA Regional Office, the owner or operator is not required to maintain copies of reports. If the EPA Regional Office has waived the requirement of §63.10(a)(4)(ii) for submittal of copies of reports, the owner or operator is not required to maintain copies of reports.</p> <p>(1) All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining four and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.</p> <p>(2) The owner or operator subject to Subparts F, G, and H of this part shall keep the records specified in this paragraph, as well as records specified in Subparts G and H.</p> <p>(i) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or of air pollution control equipment or continuous monitoring systems used to comply with this Subpart F, Subpart G, or H of this part during which excess emissions (as defined in §63.102(a)(4)) occur.</p> <p>(ii) For each start-up, shutdown, and malfunction during which excess emissions (as defined in §63.102(a)(4)) occur, records that the procedures specified in the source's start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device (e.g., the incinerator for a halogenated stream could be routed to a flare during periods when the primary control device is out of service), records must be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of record keeping that confirms conformance with the start-up, shutdown, and malfunction plan for the event.</p> <p>(iii) For continuous monitoring systems used to comply with Subpart G of this part, records documenting the completion of calibration checks and maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.</p>
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Table 9 - HON Requirements for Plant 4

6.	40 CFR 63 Subpart F § 63.103 General Compliance, Reporting, & Record keeping (continued)	Plant 4 Equipment Subject to Subparts F, G, & H listed in Tables A1 through A4	(3) Records of start-up, shutdown and malfunction and continuous monitoring system calibration and maintenance are not required if they pertain solely to Group 2 emission points, as defined in §63.111 of Subpart G of this part, that are not included in an emissions average.
7.	40 CFR 63 Subpart F § 63.105 Maintenance Wastewater Requirements	Plant 4 Waste-water System	<p>(a) Each owner or operator of a source subject to this Subpart shall comply with the requirements of paragraphs (b) through (e) of this section for maintenance wastewaters containing those organic HAP's listed in table 9 of Subpart G of this part.</p> <p>(b) The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:</p> <p>(1) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities;</p> <p>(2) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and</p> <p>(3) Specify the procedures to be followed when clearing materials from process equipment.</p> <p>(c) The owner or operator shall modify and update the information required by paragraph (b) of this section as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure.</p> <p>(d) The owner or operator shall implement the procedures described in paragraphs (b) and (c) of this section as part of the start-up, shutdown, and malfunction plan required under §63.6(e)(3) of Subpart A of this part.</p> <p>(e) The owner or operator shall maintain a record of the information required by paragraphs (b) and (c) of this section as part of the start-up, shutdown, and malfunction plan required under §63.6(e)(3) of Subpart A of this part.</p>
8.	40 CFR 63 Subpart G § 63.110(b)	Plant 4 Group 2 Storage Vessels	<p>(b) Overlap with other regulations for storage vessels.</p> <p>(1) After the compliance dates specified in §63.100 of Subpart F of this part, a Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR part 60, Subpart Kb is required to comply only with the provisions of this Subpart.</p> <p>Note: This applies to the following Group 2 Storage Vessels (Greater than 38 cubic meters in size):</p> <p>TA-18-104 Product Storage Tank TA-18-103 Reactant Storage Tank TA-18-110 IPH Storage Tank</p>

Table 9 - HON Requirements for Plant 4

9.	40 CFR 63 Subpart G § 63.112 Emission Standard	Plant 4 equipment designated in Tables A1-A4 of the Appendix designated as subject to Subpart G	<p>(e) The owner or operator of an existing or new source may comply with the process vent provisions in §§63.113 through 63.118 of this Subpart, the storage vessel provisions in §§63.119 through 63.123 of this Subpart, the transfer operation provisions in §§63.126 through 63.130 of this Subpart, the wastewater provisions in §§63.131 through 63.147 of this Subpart, the leak inspection provisions in §63.148, and the provisions in §63.149 of this Subpart.</p> <p>(1) The owner or operator using this compliance approach shall also comply with the requirements of §63.151 and §63.152 of this Subpart, as applicable.</p> <p>(2) The owner or operator using this compliance approach is not required to calculate the annual emission rate specified in paragraph (a) of this section.</p> <p>(3) When emissions of different kinds (e.g., emissions from process vents, transfer operations, storage vessels, process wastewater, and/or in-process equipment subject to §63.149 of this Subpart) are combined, and at least one of the emission streams would be classified as Group 1 in the absence of combination with other emission streams, the owner or operator shall comply with the requirements of either paragraph (e)(3)(i) or paragraph (e)(3)(ii) of this section.</p> <p>(i) Comply with the applicable requirements of this Subpart for each kind of emissions in the stream (e.g., the requirements in §§63.113 through 63.118 of this Subpart G for process vents, and the requirements of §§63.126 through 63.130 for transfer operations); or</p> <p>(ii) Comply with the first set of requirements identified in paragraphs (e)(3)(ii)(A) through (e)(3)(ii)(E) of this section which applies to any individual emission stream that is included in the combined stream, where either that emission stream would be classified as Group 1 in the absence of combination with other emission streams, or the owner chooses to consider that emission stream to be Group 1 for purposes of this paragraph. Compliance with the first applicable set of requirements identified in paragraphs (e)(3)(ii)(A) through (e)(3)(ii)(E) of this section constitutes compliance with all other requirements in paragraphs (e)(3)(ii)(A) through (e)(3)(ii)(E) of this section applicable to other types of emissions in the combined stream.</p> <p>(A) The requirements of this Subpart for Group 1 process vents, including applicable monitoring, record keeping, and reporting;</p> <p>(B) The requirements of this Subpart for Group 1 transfer racks, including applicable monitoring, record keeping, and reporting;</p> <p>(C) The requirements of §63.119(e) for control of emissions from Group 1 storage vessels, including monitoring, record keeping, and reporting;</p> <p>(D) The requirements of §63.139 for control devices used to control emissions from waste management units, including applicable monitoring, record keeping, and reporting; or</p> <p>(E) The requirements of §63.139 for closed vent systems for control of emissions from in-process equipment subject to §63.149, including applicable monitoring, record keeping, and reporting.</p>
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Table 9 - HON Requirements for Plant 4

10.	40 CFR 63 Subpart G § 63.113(e)	Plant 4 Stripper Column VA-18-010 TRE=80.7 (Group 2) (Includes Product Receivers VA-18-006 and VB-18-006 which are part of the stripper column)	(e) The owner or operator of a Group 2 process vent with a TRE index greater than 4.0 shall maintain a TRE index value greater than 4.0, comply with the provisions for calculation of TRE index in §63.115 of this Subpart and the reporting and record keeping provisions in §63.117(b) of this Subpart, §63.118(c) of this Subpart, and §63.118(h) of this Subpart, and is not subject to monitoring or any other provisions of §§63.114 through 63.118 of this Subpart.
11.	40 CFR 63 Subpart G § 63.115 Process Vent Group Determination	Plant 4 Process Vents	<p>(d) To determine the TRE index value, the owner or operator shall conduct a TRE determination and calculate the TRE index value according to the procedures in paragraph (d)(1) or (d)(2) of this section and the TRE equation in paragraph (d)(3) of this section, which is included below:</p> $TRE = 1/EHAP[a+b(Q_s)+c(HT)+d(ETOC)]$ <p>where: TRE=TRE index value. EHAP=Hourly emission rate of total organic HAP, kilograms per hour, as calculated in paragraph (d)(1) or (d)(2)(iv) of this section. Q_s=Vent stream flow rate, standard cubic meters per minute, at a standard temperature of 20 °C, as calculated in paragraph (d)(1) or (d)(2)(i) of this section. HT=Vent stream net heating value, megaJoules per standard cubic meter, as calculated in paragraph (d)(1) or (d)(2)(iii) of this section. ETOC=Emission rate of TOC (minus methane and ethane), kilograms per hour, as calculated in paragraph (d)(1) or (d)(2)(iv) of this section. a,b,c,d=Coefficients presented in table 1 of this Subpart, selected in accordance with paragraphs (d)(3)(ii) and (iii) of this section.</p> <p>(e) The owner or operator of a Group 2 process vent shall recalculate the TRE index value, flow, or organic hazardous air pollutants concentration for each process vent, as necessary to determine whether the vent is Group 1 or Group 2, whenever process changes are made that could reasonably be expected to change the vent to a Group 1 vent. Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph, process changes do not include: Process upsets; unintentional, temporary process changes; and changes that are within the range on which the original TRE calculation was based.</p>

Table 9 - HON Requirements for Plant 4

12.	40 CFR 63 Subpart G § 63.117(b) Process Vents Reporting & Record keeping Req's. For Group and TRE Determin. & Perf. Tests	Plant 4 Stripper Column (Group 2)	(b) The owner or operator of a Group 2 process vent with a TRE index greater than 4.0 as specified in §63.113(e) of this Subpart, shall maintain records and submit as part of the Notification of Compliance Status specified in §63.152 of this Subpart, measurements, engineering assessments, and calculations performed to determine the TRE index value of the vent stream. Documentation of engineering assessments shall include all data, assumptions, and procedures used for the engineering assessments, as specified in §63.115(d)(1) of this Subpart.
13.	40 CFR 63 Subpart G § 63.118(c) § 63.118(g) § 63.118(h) Process Vents Periodic Reporting & Record keeping Provisions	Plant 4 Stripper Column (Group 2)	<p>(c) Each owner or operator subject to the provisions of this Subpart and who elects to demonstrate compliance with the TRE index value greater than 4.0 under §63.113(e) of this Subpart or greater than 1.0 under §63.113(a)(3) or §63.113(d) of this Subpart shall keep up-to-date, readily accessible records of:</p> <ul style="list-style-type: none"> (1) Any process changes as defined in §63.115(e) of this Subpart; and (2) Any recalculation of the TRE index value pursuant to §63.115(e) of this Subpart. <p>(g) Whenever a process change, as defined in §63.115(e) of this Subpart, is made that causes a Group 2 process vent to become a Group 1 process vent, the owner or operator shall submit a report within 180 calendar days after the process change as specified in §63.151(j) of this Subpart. The report shall include:</p> <ul style="list-style-type: none"> (1) A description of the process change; (2) The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under §63.115(e) of this Subpart and recorded under paragraph (c), (d), or (e) of this section; and (3) A statement that the owner or operator will comply with the provisions of §63.113 of this Subpart for Group 1 process vents by the dates specified in Subpart F of this part. <p>(h) Whenever a process change, as defined in §63.115(e) of this Subpart, is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next periodic report. The report shall include:</p> <ul style="list-style-type: none"> (1) A description of the process change, (2) The results of the recalculation of the TRE index value required under §63.115(e) of this Subpart and recorded under paragraph (c) of this section, and (3) A statement that the owner or operator will comply with the requirements specified in §63.113(d) of this Subpart.
14.	40 CFR 63 Subpart G § 63.119(a)(3) Storage Vessel Provisions-Reference Control Technology	Group 2 Storage Vessels TA-18-104 TA-18-103 TA-18-110	<p>(a)(3) For each Group 2 storage vessel that is not part of an emissions average as described in §63.150 of this Subpart, the owner or operator shall comply with the record keeping requirement in §63.123(a) of this Subpart and is not required to comply with any other provisions in §§63.119 through 63.123 of this Subpart.</p> <p>Permittee has no Group 1 storage vessels.</p>

Table 9 - HON Requirements for Plant 4

15.	40 CFR 63 Subpart G § 63.123(a) Storage Vessel Provisions- Record keeping	Group 2 Storage Vessels TA-18-104 TA-18-103 TA-18-110	(a) Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of §§63.119 through 63.123 of this Subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in §63.150 of this Subpart. Permittee has no Group 1 storage vessels.
16.	40 CFR 63 Subpart G § 63.126 Transfer Operations Provisions- Reference Control Technology	Plant 4	Not applicable. Permittee has a vapor balance system. See 40 CFR 63 Subpart F Section 63.100f(10).

Table 9 - HON Requirements for Plant 4

17.	40 CFR 63 Subpart G § 63.132(a) Process Wastewater (WW) Provisions- General	Plant 4 WW Tanks TA-18-102	<p>(a) Existing sources. This paragraph specifies the requirements applicable to process wastewater streams located at existing sources. The owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(3) of this section, no later than the applicable dates specified in §63.100 of Subpart F of this part.</p> <p>(1) Determine wastewater streams to be controlled for Table 9 compounds. Determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in either paragraph (a)(1)(i) or (a)(1)(ii) of this section, and comply with the requirements in paragraph (a)(1)(iii) of this section.</p> <ul style="list-style-type: none"> (i) Comply with paragraph (c) of this section, determining whether the wastewater stream is Group 1 or Group 2 for Table 9 compounds; or (ii) Comply with paragraph (e) of this section, designating the wastewater stream as a Group 1 wastewater stream. (iii) Comply with paragraph (f) of this section. <p>(2) Requirements for Group 1 wastewater streams. For wastewater streams that are Group 1 for Table 9 compounds, comply with paragraphs (a)(2)(i) through (a)(2)(iv) of this section.</p> <ul style="list-style-type: none"> (i) Comply with the applicable requirements for wastewater tanks, surface impoundments, containers, individual drain systems, and oil/water separators as specified in §63.133 through §63.137 of this Subpart, except as provided in paragraphs (a)(2)(i)(A) and (a)(2)(i)(B) of this section and §63.138(a)(3) of this Subpart. (A) The waste management units may be equipped with pressure relief devices that vent directly to the atmosphere provided the pressure relief device is not used for planned or routine venting of emissions. (B) The pressure relief device remains in a closed position at all times except when it is necessary for the pressure relief device to open for the purpose of preventing physical damage or permanent deformation of the waste management unit in accordance with good engineering and safety practices. (ii) Comply with the applicable requirements for control of Table 9 compounds as specified in §63.138 of this Subpart. <u>Alternatively, the owner or operator may elect to comply with the treatment provisions specified in §63.132(g) of this Subpart.</u> (iii) Comply with the applicable monitoring and inspection requirements specified in §63.143 of this Subpart. (iv) Comply with the applicable record keeping and reporting requirements specified in §§63.146 and 63.147 of this Subpart. <p>(3) Requirements for Group 2 wastewater streams. For wastewater streams that are Group 2, comply with the applicable record keeping and reporting requirements specified in §§63.146 and 63.147 of this Subpart.</p>
18.	40 CFR 63 Subpart G § 63.132(c) Process WW Provisions- General	Plant 4 WW Tanks TA-18-102	<p>(c) How to determine Group 1 or Group 2 status for Table 9 compounds. This paragraph provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. Total annual average concentration shall be determined according to the procedures specified in §63.144(b) of this Subpart. Annual average flow rate shall be determined according to the procedures specified in §63.144(c) of this Subpart.</p> <p>(1) A wastewater stream is a Group 1 wastewater stream for Table 9 compounds if:</p> <ul style="list-style-type: none"> (i) The total annual average concentration of Table 9 compounds is greater than or equal to 10,000 parts per million by weight at any flow rate; or (ii) The total annual average concentration of Table 9 compounds is greater than or equal to 1,000 parts per million by weight and the annual average flow rate is greater than or equal to 10 liters per minute. <p>(2) A wastewater stream is a Group 2 wastewater stream for Table 9 compounds if it is not a Group 1 wastewater stream for Table 9 compounds by the criteria in paragraph (c)(1) of this section.</p>

Table 9 - HON Requirements for Plant 4

19.	40 CFR 63 Subpart G § 63.132(f) Process WW Provisions- General	Plant 4 WW Tanks TA-18-102	<p>(f) Owners or operators of sources subject to this Subpart shall not discard liquid or solid organic materials with a concentration of greater than 10,000 parts per million of Table 9 compounds (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of §63.144(b) of this Subpart) from a chemical manufacturing process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. This prohibition does not apply to materials from the activities listed in paragraphs (f)(1) through (f)(4) of this section.</p> <p>(1) Equipment leaks;</p> <p>(2) Activities included in maintenance or startup/shutdown/malfunction plans;</p> <p>(3) Spills; or</p> <p>(4) Samples of a size not greater than reasonably necessary for the method of analysis that is used.</p>
20.	40 CFR 63 Subpart G § 63.132(g) Process WW Provisions- General Off-site Treatment	Plant 4 WW Tanks TA-18-102	<p>(g) Off-site treatment or on-site treatment not owned or operated by the source. The owner or operator may elect to transfer a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream to an on-site treatment operation not owned or operated by the owner or operator of the source generating the wastewater stream or residual, or to an off-site treatment operation.</p> <p>(1) The owner or operator transferring the wastewater stream or residual shall:</p> <p>(i) Comply with the provisions specified in §§63.133 through 63.137 of this Subpart for each waste management unit that receives or manages a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream prior to shipment or transport.</p> <p>(ii) Include a notice with the shipment or transport of each Group 1 wastewater stream or residual removed from a Group 1 wastewater stream. The notice shall state that the wastewater stream or residual contains organic hazardous air pollutants that are to be treated in accordance with the provisions of this Subpart. When the transport is continuous or ongoing (for example, discharge to a publicly-owned treatment works), the notice shall be submitted to the treatment operator initially and whenever there is a change in the required treatment.</p> <p>(2) The owner or operator may not transfer the wastewater stream or residual unless the transferee has submitted to the EPA a written certification that the transferee will manage and treat any Group 1 wastewater stream or residual removed from a Group 1 wastewater stream received from a source subject to the requirements of this Subpart in accordance with the requirements of either §§63.133 through 63.147, or §63.102(b) of Subpart F, or Subpart D of this part if alternative emission limitations have been granted the transferor in accordance with those provisions. The certifying entity may revoke the written certification by sending a written statement to the EPA and the owner or operator giving at least 90 days notice that the certifying entity is rescinding acceptance of responsibility for compliance with the regulatory provisions listed in this paragraph. Upon expiration of the notice period, the owner or operator may not transfer the wastewater stream or residual to the treatment operation.</p> <p>(3) By providing this written certification to the EPA, the certifying entity accepts responsibility for compliance with the regulatory provisions listed in paragraph (g)(2) of this section with respect to any shipment of wastewater or residual covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity in accordance with the enforcement provisions applicable to violations of these provisions by owners or operators of sources.</p> <p>(4) Written certifications and revocation statements, to the EPA from the transferees of wastewater or residuals shall be signed by the responsible official of the certifying entity, provide the name and address of the certifying entity, and be sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable by the treater.</p> <p>Permittee collects all Group 1 wastewater from Plant 4 and ships offsite to an independently owned and operated waste disposal facility.</p>

Table 9 - HON Requirements for Plant 4

21.	40 CFR 63 Subpart G § 63.133(a) Process WW Provisions- Wastewater Tanks	Plant 4 WW Tanks TA-18-102	<p>(a) For each wastewater tank that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the owner or operator shall comply with the requirements of either paragraph (a)(1) or (a)(2) of this section as specified in table 10 of this Subpart.</p> <p>(1) The owner or operator shall operate and maintain a fixed roof except that if the wastewater tank is used for heating wastewater, or treating by means of an exothermic reaction or the contents of the tank is sparged, the owner or operator shall comply with the requirements specified in paragraph (a)(2) of this section.</p>
22.	40 CFR 63 Subpart G § 63.133(f) § 63.133(h) Process WW Provisions- WW Tanks Inspection & Repair	Plant 4 WW Tanks TA-18-102	<p>(f) Except as provided in paragraph (e) of this section, each wastewater tank shall be inspected initially, and semi-annually thereafter, for improper work practices in accordance with §63.143 of this Subpart. For wastewater tanks, improper work practice includes, but is not limited to, leaving open any access door or other opening when such door or opening is not in use.</p> <p>(h) Except as provided in §63.140 of this Subpart, when an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 45 calendar days after identification. If a failure that is detected during inspections required by paragraphs (a)(2)(i) or (a)(3)(ii) of this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to two extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.</p>
23.	40 CFR 63 Subpart G § 63.146(b) Process Wastewater Provisions- Reporting	Plant 4 WW Tanks TA-18-102	<p>(b) The owner or operator shall submit the information specified in paragraphs (b)(1) through (b)(9) of this section as part of the Notification of Compliance Status required by §63.152(b) of this Subpart.</p> <p>(2) For each new and existing source, the owner or operator shall submit the information specified in table 15 of this Subpart for Table 8 and/or Table 9 compounds.</p>
24.	40 CFR 63 Subpart G § 63.147 Process WW Provisions- Record keeping	Plant 4 WW Tanks TA-18-102	<p>(b) The owner or operator shall keep in a readily accessible location the records specified in paragraph (b)(1) of this section.</p> <p>(1) A record that each waste management unit inspection required by §§63.133 through 63.137 of this Subpart was performed.</p>
25.	40 CFR 63 Subpart G § 63.151(a) Initial Notification	Plant 4	<p>(a) Each owner or operator of a source subject to this Subpart shall submit the reports listed in paragraphs (a)(1) through (a)(5) of this section.</p> <p>(1), (2), & #3) Initial Notification, Implementation Plan, and Compliance Status are already completed in the past as detailed in the Requirements Not Currently Applicable Table (Table 10 of this Title V Operating Permit)</p> <p>(4) Periodic Reports described in §63.152 of this Subpart, and</p> <p>(5) Other reports described in §63.152 of this Subpart.</p>

Table 9 - HON Requirements for Plant 4

26.	40 CFR 63 Subpart G § 63.152(a) General Reporting and Continuous Records	Plant 4	<p>(a) The owner or operator of a source subject to this Subpart shall submit the reports listed in paragraphs (a)(1) through (a)(5) of this section and keep continuous records of monitored parameters as specified in paragraph (f) of this section.</p> <p>Hampshire Chemical Corp. has already submitted (a)(1) through (a)(3), which are the Initial Notification, Implementation Plan, and Notification of Compliance Status.</p> <p>(4) Periodic reports described in paragraph (c) of this section.</p> <p>(5) Other reports described in paragraphs (d) and (e) of this section.</p>
27.	40 CFR 63 Subpart G § 63.152(c) General Reporting and Continuous Records	Plant 4	<p>(c) The owner or operator of a source subject to this Subpart shall submit Periodic Reports.</p> <p>(1) Except as specified under paragraphs (c)(5) and (c)(6) of this section, a report containing the information in paragraphs (c)(2), (c)(3), and (c)(4) of this section shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than 8 months after the date the Notification of Compliance Status is due (May 19, 1998) and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due.</p> <p>(2) Except as provided in paragraph (c)(2)(iv) of this section, for an owner or operator of a source complying with the provisions of §§63.113 through 63.147 for any emission points, Periodic Reports shall include all information specified in §§63.117 and 63.118 for process vents, §63.122 for storage vessels, §§63.129 and 63.130 for transfer operations, and §63.146 for process wastewater, including reports of periods when monitored parameters are outside their established ranges.</p> <p>(3) If any performance tests are reported in a Periodic Report, the following information shall be included:</p> <p>(i) One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in paragraph (b)(1)(ii) of this section.</p> <p>(ii) For additional tests performed for the same kind of emission point using the same method, results and any other information required in 269 §63.117 for process vents, §63.129 for transfer, and §63.146 for process wastewater shall be submitted, but a complete test report is not required.</p> <p>(4) Periodic Reports shall include the information in paragraphs (c)(4)(i) through (c)(4)(iv) of this section, as applicable:</p> <p>(i) For process vents, reports of process changes as required under §63.118 (g), (h), (i), and (j) of this Subpart,</p> <p>(ii) Any supplements required under §63.151(i) and (j) of this Subpart,</p> <p>(iii) Notification if any Group 2 emission point becomes a Group 1 emission point, including a compliance schedule as required in §63.100 of Subpart F of this part, and</p> <p>(iv) For process wastewater streams sent for treatment pursuant to §63.132 (g), reports of changes in the identity of the treatment facility or transferee.</p>
28.	40 CFR 63 Subpart G § 63.152(d) General Reporting and Continuous Records	Plant 4	<p>(d) Other reports shall be submitted as specified in Subpart A of this part or in §§63.113 through 63.151 of this Subpart. These reports are:</p> <p>(1) Reports of start-up, shutdown, and malfunction required by §63.10(d)(5) of Subpart A. The semi-annual start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under paragraph (c) of this section instead of the schedule specified in §63.10(d)(5)(i) of Subpart A.</p> <p>(2) For storage vessels, the notifications of inspections required by §63.122 (h)(1) and (h)(2) of this Subpart.</p>

Table 9 - HON Requirements for Plant 4

29.	40 CFR 63 Subpart H NESHAP for Equipment Leaks § 63.162(f) § 63.162(h) General Standards	Plant 4	<p>(f) When each leak is detected as specified in §§63.163 and 63.164; §§63.168 and 63.169; and §§63.172 through 63.174 of this Subpart, the following requirements apply:</p> <p>(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.</p> <p>(2) The identification on a valve may be removed after it has been monitored as specified in §§63.168(f)(3), and 63.175(e)(7)(i)(D) of this Subpart, and no leak has been detected during the follow-up monitoring. If the owner or operator elects to comply using the provisions of §63.174(c)(1)(i) of this Subpart, the identification on a connector may be removed after it is monitored as specified in §63.174(c)(1)(i) and no leak is detected during that monitoring.</p> <p>(3) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of §63.174(c)(1)(i), may be removed after it is repaired.</p> <p>(h) In all cases where the provisions of this Subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this Subpart to fail to take action to repair the leaks within the specified time. If action is taken to repair the leaks within the specified time, failure of that action to successfully repair the leak is not a violation of this Subpart. However, if the repairs are unsuccessful, a leak is detected and the owner or operator shall take further action as required by applicable provisions of this Subpart.</p> <p>Note: A complete file of all equipment which is subject to Subpart H is available for review at the facility during normal business hours.</p>
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Table 9 - HON Requirements for Plant 4

30.	40 CFR 63 Subpart H § 63.163 Standards: Pumps in Light Liquid Service	Plant 4 Pumps in Light Liquid Service	<p>(b) (1) The owner or operator of a process unit subject to this Subpart shall monitor each pump monthly to detect leaks by the method specified in §63.180(b) of this Subpart and shall comply with the requirements of paragraphs (a) through (d) of this section, except as provided in §63.162(b) of this Subpart and paragraphs (e) through (i) of this section.</p> <p>(2) The instrument reading, as determined by the method as specified in §63.180(b) of this Subpart, that defines a leak in each phase of the standard is:</p> <ul style="list-style-type: none"> (i) For Phase I, beginning October 23, 1995, an instrument reading of 10,000 parts per million or greater. (ii) For Phase II, beginning October 23, 1996, an instrument reading of 5,000 parts per million or greater. (iii) For Phase III, beginning May 8, 1998, an instrument reading of: <ul style="list-style-type: none"> (A) 5,000 parts per million or greater for pumps handling polymerizing monomers; (B) 2,000 parts per million or greater for pumps in food/medical service; and (C) 1,000 parts per million or greater for all other pumps. <p>(3) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.</p> <p>(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (c)(3) of this section or §63.171 of this Subpart.</p> <p>(2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:</p> <ul style="list-style-type: none"> (i) Tightening of packing gland nuts. (ii) Ensuring that the seal flush is operating at design pressure and temperature. <p>(3) For pumps in Phase III to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.</p> <p>(d) (1) The owner or operator shall decide no later than the first monitoring period whether to calculate percent leaking pumps on a process unit basis or on a source-wide basis. Once the owner or operator has decided, all subsequent percent calculations shall be made on the same basis.</p> <p>(2) If, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of §63.176 of this Subpart.</p> <p>(3) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.</p> <p>(4) Percent leaking pumps shall be determined by the following equation: $\%PL = ((PL - PS) / (PT - PS)) \times 100$ where: %PL=Percent leaking pumps PL=Number of pumps found leaking as determined through monthly monitoring as required in paragraphs (b)(1) and (b)(2) of this section. PT=Total pumps in organic HAP service, including those meeting the criteria in paragraphs (e) and (f) of this section. PS=Number of pumps leaking within 1 month of start-up during the current monitoring period.</p>
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Table 9 - HON Requirements for Plant 4

31.	40 CFR 63 Subpart H § 63.164 Standards: Compressors	Plant 4 Compressors	<p>(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided in §63.162(b) of this Subpart and paragraphs (h) and (i) of this section.</p> <p>(b) Each compressor seal system as required in paragraph (a) of this section shall be:</p> <ol style="list-style-type: none"> (1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or (2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §63.172 of this Subpart; or (3) Equipped with a closed-loop system that purges the barrier fluid directly into a process stream. <p>(c) The barrier fluid shall not be in light liquid service.</p> <p>(d) Each barrier fluid system as described in paragraphs (a) through (c) of this section shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.</p> <p>(e)</p> <ol style="list-style-type: none"> (1) Each sensor as required in paragraph (d) of this section shall be observed daily or shall be equipped with an alarm unless the compressor is located within the boundary of an unmanned plant site. (2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. <p>(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under paragraph (e)(2) of this section, a leak is detected.</p> <p>(g)</p> <ol style="list-style-type: none"> (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this Subpart. (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
32.	40 CFR 63 Subpart H § 63.165 Standards: Pressure Relief Devices in Gas/Vapor Service	Plant 4 Pressure Relief Devices	<p>(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided in paragraph (b) of this section, as measured by the method specified in §63.180(c) of this Subpart.</p> <p>(b)</p> <ol style="list-style-type: none"> (1) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §63.171 of this Subpart. (2) No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in §63.180(c) of this Subpart.

Table 9 - HON Requirements for Plant 4

33.	40 CFR 63 Subpart H § 63.166 Standards: Sampling Connection Systems	Plant 4 Sampling Connection Systems	<p>(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in §63.162(b) of this Subpart. Gases displaced during filling of the sample container are not required to be collected or captured.</p> <p>(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall:</p> <ul style="list-style-type: none"> (1) Return the purged process fluid directly to the process line; or (2) Collect and recycle the purged process fluid to a process; or (3) Be designed and operated to capture and transport the purged process fluid to a control device that complies with the requirements of §63.172 of this Subpart. (4) Collect, store, and transport the purged process fluid to a system or facility identified in paragraph (b)(4)(i), (ii), or (iii) of this section. <ul style="list-style-type: none"> (i) A waste management unit as defined in §63.11 of Subpart G of this part, if the waste management unit is subject to, and operated in compliance with the provisions of Subpart G of this part applicable to Group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in Table 9 of Subpart G of part 63, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR part 63, Subpart G applicable to group 1 wastewater streams provided the facility has an NPDES permit or sends the wastewater to an NPDES permitted facility. (ii) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or (iii) A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261. <p>(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.</p>
34.	40 CFR 63 Subpart H § 63.167 Standards: Open-ended Valves or Lines	Plant 4 Open-ended Valves or Lines	<p>(a) (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.</p> <p>(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.</p> <p>(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p>(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section.</p>

Table 9 - HON Requirements for Plant 4

35.	40 CFR 63 Subpart H § 63.168 Standards: Valves in Gas/Vapor Service and in Light Liquid Service	Plant 4 Valves in Gas/Vapor Service and in Light Liquid Service	<p>(a) The provisions of this section apply to valves that are either in gas service or in light liquid service.</p> <p>(i) For each group of existing process units at existing sources subject to the provisions of Subpart F or I of this part, the phases of the standard are:</p> <p>(A) Phase I, beginning on the compliance date, October 23, 1995;</p> <p>(B) Phase II, beginning no later than 1 year after the compliance date, October 23, 1996; and</p> <p>(C) Phase III, beginning no later than 2½ years after the compliance date, May 8, 1998.</p> <p>(b) The owner or operator of a source subject to this Subpart shall monitor all valves, except as provided in §63.162(b) of this Subpart and paragraphs (h) and (i) of this section, at the intervals specified in paragraphs (c) and (d) of this section and shall comply with all other provisions of this section, except as provided in §63.171, §63.177, §63.178, and §63.179 of this Subpart.</p> <p>(1) The valves shall be monitored to detect leaks by the method specified in §63.180(b) of this Subpart.</p> <p>(2) The instrument reading that defines a leak in each phase of the standard is:</p> <p>(i) For Phase I, an instrument reading of 10,000 parts per million or greater. 308</p> <p>(ii) For Phase II, an instrument reading of 500 parts per million or greater.</p> <p>(iii) For Phase III, an instrument reading of 500 parts per million or greater.</p> <p>(c) In Phases I and II, each valve shall be monitored quarterly.</p> <p>(d) In Phase III, the owner or operator shall monitor valves for leaks at the intervals specified below:</p> <p>(1) At process units with 2 percent or greater leaking valves, calculated according to paragraph (e) of this section, the owner or operator shall either:</p> <p>(i) Monitor each valve once per month; or</p> <p>(ii) Within the first year after the onset of Phase III, implement a quality improvement program for valves that complies with the requirements of §63.175 (d) or (e) of this Subpart and monitor quarterly.</p> <p>(2) At process units with less than 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in paragraphs (d)(3) and (d)(4) of this section.</p> <p>(3) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters.</p> <p>(4) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters.</p> <p>monitoring periods for annual monitoring programs.</p>
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Table 9 - HON Requirements for Plant 4

36.	40 CFR 63 Subpart H § 63.168 Standards: Valves in Gas/Vapor Service and in Light Liquid Service (cont'd)	Plant 4 Valves in Gas/Vapor Service and in Light Liquid Service	<p>(e) (1) Percent leaking valves at a process unit shall be determined by the following equation:</p> $\%VL = (VL / (VT + VC)) \times 100$ <p>where: %VL=Percent leaking valves as determined through periodic monitoring required in paragraphs (b) through (d) of this section. VL=Number of valves found leaking excluding non-repairables as provided in paragraph (e)(3)(i) of this section. VT=Total valves monitored, in a monitoring period excluding valves monitored as required by (f)(3) of this section. VC=Optional credit for removed valves=0.67 x net number (i.e., total removed-total added) of valves in organic HAP service removed from process unit after the date set forth in §63.100(k) of Subpart F for existing process units, and after the date of initial start-up for new sources. If credits are not taken, then VC=0.</p> <p>(2) For use in determining monitoring frequency, as specified in paragraph (d) of this section, the percent leaking valves shall be calculated as a rolling average of two consecutive monitoring periods for monthly, quarterly, or semiannual monitoring programs; and as an average of any three out of four consecutive monitoring periods for annual monitoring programs.</p> <p>(3) (i) Non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and Non-repairable and as required to comply with paragraph (e)(3)(ii) of this section. Otherwise, a number of Non-repairable valves (identified and included in the percent leaking calculation in a previous period) up to a maximum of 1 percent of the total number of valves in organic HAP service at a process unit may be excluded from calculation of percent leaking valves for subsequent monitoring periods. (ii) If the number of Non-repairable valves exceeds 1 percent of the total number of valves in organic HAP service at a process unit, the number of Non-repairable valves exceeding 1 percent of the total number of valves in organic HAP service shall be included in the calculation of percent leaking valves.</p> <p>(f) (1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §63.171 of this Subpart. (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (3) When a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair.</p>
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Table 9 - HON Requirements for Plant 4

37.	40 CFR 63 Subpart H § 63.169 Standards: Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service	Plant 4 Pumps, valves, connectors, and agitators in heavy liquid service; instrumentation systems; and pressure relief devices in liquid service	<p>(a) Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in §63.180(b) of this Subpart if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in paragraphs (c) and (d) of this section, it is not necessary to monitor the system for leaks by the method specified in §63.180(b) of this Subpart.</p> <p>(b) If an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million or greater for pumps in food/medical service or pumps subject to §63.163(b)(iii)(C), or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.</p> <p>(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this Subpart.</p> <p>(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p> <p>(3) For equipment identified in paragraph (a) of this section that is not monitored by the method specified in §63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.</p> <p>(d) First attempts at repair include, but are not limited to, the practices described under §§63.163(c)(2) and 63.168(g) of this Subpart, for pumps and valves, respectively.</p>
38.	40 CFR 63 Subpart H § 63.170 Standards: Surge control vessels and bottoms receivers	Plant 4 Surge control vessels and bottoms receivers	Each surge control vessel or bottoms receiver that is not routed back to the process and that meets the conditions specified in table 2 or table 3 of this Subpart shall be equipped with a closed-vent system that routes the organic vapors vented from the surge control vessel or bottoms receiver back to the process or to a control device that complies with the requirements in §63.172 of this Subpart, except as provided in §63.162(b) of this Subpart, or comply with the requirements of §63.119(b) or (c) of Subpart G of this part.

Table 9 - HON Requirements for Plant 4

39.	40 CFR 63 Subpart H § 63.172 Standards: Closed-vent systems and control devices	Plant 4 Closed-vent systems and control devices	<p>(f) Except as provided in paragraphs (k) and (l) of this section, each hard-piped closed-vent system shall be inspected according to the procedures and schedule specified in paragraph (f)(1):</p> <p>(1) If the closed-vent system is constructed of hard-piping, the owner or operator shall:</p> <p>(i) Conduct an initial inspection according to the procedures in paragraph (g) of this section, and</p> <p>(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.</p> <p>(g) Each closed-vent system shall be inspected according to the procedures in §63.180(b) of this Subpart.</p> <p>(h) Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in paragraph (i) of this section.</p> <p>(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.</p> <p>(2) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in paragraph (i) of this section.</p> <p>(i) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.</p>
40.	40 CFR 63 Subpart H § 63.173 Standards: Agitators in Gas/Vapor Service and in Light Liquid Service	Plant 4 Agitators in Gas/Vapor Service and in Light Liquid Service	<p>(a) (1) Each agitator shall be monitored monthly to detect leaks by the methods specified in §63.180(b) of this Subpart, except as provided in §63.162(b) of this Subpart.</p> <p>(2) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.</p> <p>(b) (1) Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator.</p> <p>(2) If there are indications of liquids dripping from the agitator, a leak is detected.</p> <p>(c) (1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §63.171 of this Subpart.</p> <p>(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p>

Table 9 - HON Requirements for Plant 4

41.	40 CFR 63 Subpart H § 63.174 Standards: Connectors in Gas/Vapor Service and in Light Liquid Service	Connectors in Gas/Vapor Service and in Light Liquid Service	<p>(a) The owner or operator of a process unit subject to this Subpart shall monitor all connectors in gas/vapor and light liquid service, except as provided in §63.162(b) of this Subpart, and in paragraphs (f) through (h) of this section, at the intervals specified in paragraph (b) of this section.</p> <p>(1) The connectors shall be monitored to detect leaks by the method specified in §63.180(b) of this Subpart.</p> <p>(2) If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.</p> <p>(b) The owner or operator shall monitor for leaks at the intervals specified in either paragraph (b)(1) or (b)(2) of this section and in paragraph (b)(3) of this section.</p> <p>(1) For each group of existing process units within an existing source, by no later than 12 months after the compliance date, the owner or operator shall monitor all connectors, except as provided in paragraphs (f) through (h) of this section.</p> <p>(3) After conducting the initial survey required in paragraph (b)(1) or (b)(2) of this section, the owner or operator shall perform all subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(3)(i) through (b)(3)(v) of this section, except as provided in paragraph (c)(2) of this section:</p> <p>(i) Once per year (i.e., 12-month period), if the percent leaking connectors in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.</p> <p>(ii) Once every 2 years, if the percent leaking connectors was less than 0.5 percent during the last required monitoring period. An owner or operator may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period.</p> <p>(iii) If the owner or operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors from the 2-year monitoring period, the owner or operator may monitor the connectors one time every 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.</p> <p>(iv) If a process unit complying with the requirements of paragraph (b) of this section using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The owner or operator may again elect to use the provisions of paragraph (b)(3)(iii) of this section when the percent leaking connectors decreases to less than 0.5 percent.</p> <p>(v) If a process unit complying with requirements of paragraph (b)(3)(iii) of this section using a 4-year monitoring interval program has 1 percent or greater leaking connectors, the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of paragraph (b)(3)(iii) of this section when the percent leaking connectors decreases to less than 0.5 percent.</p> <p>(c) (1)(i) Except as provided in paragraph (c)(1)(ii) of this section, each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions of paragraph (d) of this section.</p> <p>(d) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in paragraph (g) of this section</p>
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Table 9 - HON Requirements for Plant 4

42.	40 CFR 63 Subpart H § 63.180 Test Methods and Procedures	Plant 4 Leak Detection	<p>(b) Monitoring, as required under this Subpart, shall comply with the following requirements:</p> <p>(1) Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A.</p> <p>(2) (i) Except as provided for in paragraph (b)(2)(ii) of this section, the detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in Section 3.1.2(a) of Method 21 shall be for the average composition of the process fluid not each individual VOC in the stream. For process streams that contain nitrogen, water, air, or other inerts which are not organic HAP's or VOC's, the average stream response factor may be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted. (ii) If no instrument is available at the plant site that will meet the performance criteria specified in paragraph (b)(2)(i) of this section, the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in paragraph (b)(2)(i) of this section.</p> <p>(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.</p> <p>(4) Calibration gases shall be:</p> <p>(i) Zero air (less than 10 parts per million of hydrocarbon in air); and</p> <p>(ii) Mixtures of methane in air at the concentrations specified in paragraphs (b)(4)(ii)(A) through (b)(4)(ii)(C) of this section. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (b)(2)(i) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.</p> <p>(A) For Phase I, a mixture of methane or other compounds, as applicable, in air at a concentration of approximately, but less than, 10,000 parts per million.</p> <p>(B) For Phase II, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million for agitators, 5,000 parts per 328 million for pumps, and 500 parts per million for all other equipment, except as provided in paragraph (b)(4)(iii) of this section.</p> <p>(C) For Phase III, a mixture of methane or other compounds, as applicable, and air at a concentration of approximately, but less than, 10,000 parts per million methane for agitators; 2,000 parts per million for pumps in food/medical service; 5,000 parts per million for pumps in polymerizing monomer service; 1,000 parts per million for all other pumps; and 500 parts per million for all other equipment, except as provided in paragraph (b)(4)(iii) of this section.</p> <p>(iii) The instrument may be calibrated at a higher methane concentration than the concentration specified for that piece of equipment. The concentration of the calibration gas may exceed the concentration specified as a leak by no more than 2,000 parts per million. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 parts per million above the concentration specified as a leak and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 parts per million. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring.</p> <p>(5) Monitoring shall be performed when the equipment is in organic HAP service, in use with an acceptable surrogate volatile organic compound which is not an organic HAP, or is in use with any other detectable gas or vapor.</p>
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Table 9 - HON Requirements for Plant 4

43.	40 CFR 63 Subpart H § 63.181 Record keeping Requirements	Plant 4	<p>(a) An owner or operator of more than one process unit subject to the provisions of this Subpart may comply with the record keeping requirements for these process units in one record keeping system if the system identifies each record by process unit and the program being implemented (e.g., quarterly monitoring, quality improvement) for each type of equipment. All records and information required by this section shall be maintained in a manner that can be readily accessed at the plant site. This could include physically locating the records at the plant site or accessing the records from a central location by computer at the plant site.</p> <p>(b) Except as provided in paragraph (e) of this section, the following information pertaining to all equipment in each process unit subject to the requirements in §§63.162 through 63.174 of this Subpart shall be recorded:</p> <p>(1) (i) A list of identification numbers for equipment (except connectors exempt from monitoring and record keeping identified in §63.174 of this Subpart and instrumentation systems) subject to the requirements of this Subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this Subpart are identified as a group, and the number of connectors subject is indicated. With respect to connectors, the list shall be complete no later than the completion of the initial survey required by §63.174 (b)(1) or (b)(2) of this Subpart.</p> <p>(ii) A schedule by process unit for monitoring connectors subject to the provisions of §63.174(a) of this Subpart and valves subject to the provisions of §63.168(d) of this Subpart.</p> <p>(iii) Physical tagging of the equipment to indicate that it is in organic HAP service is not required. Equipment subject to the provisions of this Subpart may be identified on a plant site plan, in log entries, or by other appropriate methods.</p> <p>(2) (i) A list of identification numbers for equipment that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of §63.163(g), §63.164(h), §63.165(c), or §63.173(f) of this Subpart.</p> <p>(ii) A list of identification numbers for compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of §63.164(i) of this Subpart.</p> <p>(iii) Identification of surge control vessels or bottoms receivers subject to the provisions of this Subpart that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of §63.170 of this Subpart.</p> <p>(3) (i) A list of identification numbers for pressure relief devices subject to the provisions in §63.165(a) of this Subpart.</p> <p>(ii) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of §63.165(d) of this Subpart.</p> <p>(4) Identification of instrumentation systems subject to the provisions of this Subpart. Individual components in an instrumentation system need not be identified.</p> <p>(5) Identification of screwed connectors subject to the requirements of §63.174(c)(2) of this Subpart. Identification can be by area or grouping as long as the total number within each group or area is recorded.</p> <p>(c) For visual inspections of equipment subject to the provisions of this Subpart (e.g., §63.163(b)(3), §63.163(e)(4)(i)), the owner or operator shall document that the inspection was conducted and the date of the inspection. The owner or operator shall maintain records as specified in paragraph (d) of this section for leaking equipment identified in this inspection, except as provided in paragraph (e) of this section. These records shall be retained for 2 years.</p>
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Table 9 - HON Requirements for Plant 4

43.	40 CFR 63 Subpart H § 63.181 Record keeping Requirements (continued)	Plant 4	<p>(d) When each leak is detected as specified in §§63.163 and 63.164; §§63.168 and 63.169; and §§63.172 through 63.174 of this Subpart, the following information shall be recorded and kept for 2 years:</p> <ul style="list-style-type: none"> (1) The instrument and the equipment identification number and the operator name, initials, or identification number. (2) The date the leak was detected and the date of first attempt to repair the leak. (3) The date of successful repair of the leak. (4) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be Non-repairable. (5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (6) Dates of process unit shutdowns that occur while the equipment is unrepaired. (9) Copies of the periodic reports as specified in §63.182(d) of this Subpart, if records are not maintained on a computerized database capable of generating summary reports from the records. <p>(f) The dates and results of each compliance test required for compressors subject to the provisions in §63.164(i) and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in §§63.165 (a) and (b) of this Subpart. The results shall include:</p> <ul style="list-style-type: none"> (1) The background level measured during each compliance test. (2) The maximum instrument reading measured at each piece of equipment during each compliance test.
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Table 9 - HON Requirements for Plant 4

43.	40 CFR 63 Subpart H § 63.181 Record keeping Requirements (continued)	Plant 4	<p>(g) The owner or operator shall maintain records of the information specified in paragraphs (g)(1) through (g)(3) of this section for closed-vent systems and control devices subject to the provisions of §63.172 of this Subpart. The records specified in paragraph (g)(1) of this section shall be retained for the life of the equipment. The records specified in paragraphs (g)(2) and (g)(3) of 333 this section shall be retained for 2 years.</p> <p>(1) The design specifications and performance demonstrations specified in paragraphs (g)(1)(i) through (g)(1)(iv) of this section.</p> <ul style="list-style-type: none"> (i) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams. (ii) The dates and descriptions of any changes in the design specifications. (iii) The flare design (i.e., steam-assisted, air-assisted, or non-assisted) and the results of the compliance demonstration required by §63.11(b) of Subpart A of this part. (iv) A description of the parameter or parameters monitored, as required in §63.172(e) of this Subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. <p>(2) Records of operation of closed-vent systems and control devices, as specified in paragraphs (g)(2)(i) through (g)(2)(iii) of this section.</p> <ul style="list-style-type: none"> (i) Dates and durations when the closed-vent systems and control devices required in §§63.163 through 63.166, and §63.170 of this Subpart are not operated as designed as indicated by the monitored parameters, including periods when a flare pilot light system does not have a flame. (ii) Dates and durations during which the monitoring system or monitoring device is inoperative. (iii) Dates and durations of start-ups and shutdowns of control devices required in §§63.163 through 63.166, and §63.170 of this Subpart. <p>(3) Records of inspections of closed-vent systems subject to the provisions of §63.172, as specified in paragraphs (g)(2)(i) through (g)(2)(iii) of this section.</p> <ul style="list-style-type: none"> (i) For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) of this Subpart during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. (ii) For each inspection conducted in accordance with the provisions of §63.172(f)(1) or (f)(2) of this Subpart during which leaks were detected, the information specified in paragraph (d) of this section shall be recorded. <p>(i) The owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph (i)(1) or (i)(2) of this section, as provided in paragraph (i)(3) of this section.</p> <ul style="list-style-type: none"> (1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service. (2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service. (3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.
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Table 9 - HON Requirements for Plant 4

44.	40 CFR 63 Subpart H § 63.182(d) Reporting Requirements	Plant 4	<p>(d) The owner or operator of a source subject to this Subpart shall submit Periodic Reports.</p> <p>(1) A report containing the information in paragraphs (d)(2), (d)(3), and (d)(4) of this section shall be submitted semiannually starting 6 months after the Notification of Compliance Status, as required in paragraph (c) of this section. The first periodic report shall cover the first 6 months after the compliance date specified in §63.100(k)(3) of Subpart F. Each subsequent periodic report shall cover the 6 month period following the preceding period.</p> <p>(2) For each process unit complying with the provisions of §63.163 through §63.174 of this Subpart, the summary information listed in paragraphs (i) through (xvi) of this paragraph for each monitoring period during the 6-month period.</p> <ul style="list-style-type: none"> (i) The number of valves for which leaks were detected as described in §63.168(b) of this Subpart, the percent leakers, and the total number of valves monitored; (ii) The number of valves for which leaks were not repaired as required in §63.168(f) of this Subpart, identifying the number of those that are determined Non-repairable; (iii) The number of pumps for which leaks were detected as described in §63.163(b) of this Subpart, the percent leakers, and the total number of pumps monitored; (iv) The number of pumps for which leaks were not repaired as required in §63.163(c) of this Subpart; (v) The number of compressors for which leaks were detected as described in §63.164(f) of this Subpart; (vi) The number of compressors for which leaks were not repaired as required in §63.164(g) of this Subpart; (vii) The number of agitators for which leaks were detected as described in §63.173(a) and (b) of this Subpart; (viii) The number of agitators for which leaks were not repaired as required in §63.173(c) of this Subpart; (ix) The number of connectors for which leaks were detected as described in §63.174(a) of this Subpart, the percent of connectors leaking, and the total number of connectors monitored; (x) [Reserved] (xi) The number of connectors for which leaks were not repaired as required in §63.174(d) of this Subpart, identifying the number of those that are determined Non-repairable; (xii) [Reserved] (xiii) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. (xiv) The results of all monitoring to show compliance with §§63.164(i), 63.165(a), and 63.172(f) of this Subpart conducted within the semiannual reporting period. (xv) If applicable, the initiation of a monthly monitoring program under §63.168(d)(1)(i) of this Subpart, or a quality improvement program under either §§63.175 or 63.176 of this Subpart. (xvi) If applicable, notification of a change in connector monitoring alternatives as described in §63.174(c)(1) of this Subpart. (xvii) If applicable, the compliance option that has been selected under §63.172(n).
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VIII. H. Applicable HON Requirements That Have Been Completed

Hampshire Chemical Corp. has completed at the time of permit issuance, several applicable initial notification requirements contained in 40 CFR 63, Subparts F, G, and H which are listed below in Table 10 for purposes of clarity, rather than including them in Table 9.

Table 10 - Applicable HON Requirements That Have Been Completed	
Statutes and Regulations	Requirement/Description
40 CFR 63, Subpart F, §63.100(k)(2)(i)	Requirement for process vents, storage vessels, and transfer racks to be in compliance with Subparts F & G no later than April 22, 1997. HCC met the compliance deadline.
40 CFR 63, Subpart F, §63.100(k)(2)(ii)	Requirement for heat exchangers and maintenance wastewater systems to be in compliance with Subparts F & G no later than April 22, 1999. HCC met the compliance deadline.
40 CFR 63, Subpart F, §63.100(k)(3)	Requirement for Group 5 sources be in compliance with Subpart H no later than October 23, 1995. HCC met the compliance deadline.
40 CFR 63, Subpart G, §63.151(a)(1)	Requirement to submit Initial Notification. HCC submitted initial notification on August 19, 1994.
40 CFR 63, Subpart G, §63.151(a)(2)	Requirement to submit Implementation Plan. HCC submitted the implementation plan with its Title V Permit Application on June 28, 1996.
40 CFR 63, Subpart G, §63.151(a)(3)	Requirement to submit a Notification of Compliance Status. HCC submitted its notification of compliance status on January 19, 1996.
40 CFR 63, Subpart H, §63.182(a)(1)	Requirement to submit Initial Notification. HCC submitted initial notification on August 19, 1994.
40 CFR 63, Subpart G, §63.182(a)(2)	Requirement to submit a Notification of Compliance Status. HCC submitted its notification of compliance status on January 19, 1996.

IX. Requirements Currently Not Applicable:

Hampshire Chemical Corp. has identified the following requirements in Table 11 which are not applicable to the facility at the time of permit issuance:

Table 11 - Requirements Currently Not Applicable	
Statutes and Regulations	Requirement/Description of Non-applicability
CAAA Section 111, 42 U.S.C. 7411	Requirements for establishing new source performance standards
CAAA Section 112(g), 42 U.S.C. 7412	Requirement to establish case-by-case MACT standard for construction of new sources and modifications to existing sources.
CAAA Section 112(j), 42 U.S.C. 7412	Requirement to establish case-by-case MACT standard where EPA is late in promulgating a MACT for a particular source category.
40 CFR 63.126	Requirement to use Reference Control Technology for transfer operations. Not applicable. Hampshire Chemical Corp. has a vapor balance system as required by 40 CFR 63 Subpart F Section 63.100f(10).
Env-A 1204.09 through 1204.17	Standards for control of Volatile Organic Compounds from various categories of coating operations. Hampshire Chemical Corp. does not perform any coating operations at its facility.
Env-A 1204.18 and 1204.19	Standards for control of Volatile Organic Compounds from printing operations. Hampshire Chemical Corp. does not engage in any printing operations at its facility.
Env-A 1204.20 and 1204.21	Standards for control of Volatile Organic Compounds from fixed-roof tank and external floating roof tanks of volatile organic liquids with a storage capacity greater than 40,000 gallons. Hampshire Chemical Corp. does not have any storage tanks containing volatile organic compounds greater than or equal to 40,000 gallons in capacity.
Env-A 1204.26	Standards for control of Volatile Organic Compounds from Solvent Metal Cleaning with actual VOC emissions greater than 5 tons in any consecutive 12 month period. VOC emissions from solvent metal cleaning at Hampshire Chemical Corp. are below the applicability threshold.
Env-A 1205	Standards for control of Volatile Organic Compounds from Gasoline Dispensing Facilities and Cargo Trucks. Hampshire Chemical Corp. has an annual throughput of less than 120,000 gallons per year and does not have any gasoline storage tank greater than 1100 gallons in size.
Env-A 2104	Emission Standards for Toxic Particulate Matter from process, manufacturing, and service-based industries.

Table 11 - Requirements Currently Not Applicable

Env-A 2105	Emission Standards for Toxic Particulate Matter (Beryllium, Mercury, and Asbestos) from process, manufacturing, and service-based industries.
Env-A 2106	Emission Standards for Acid Mists, Including Sulfur Dioxide Mists and Nitrogen Oxide Mists from process, manufacturing, and service-based industries.
40 CFR 61.357(a)	Requirements for sources with benzene emissions greater than 10 megagrams per year.

General Title V Operating Permit Conditions

X. Issuance of a Title V Operating Permit:

- A. This Permit is issued in accordance with the provisions of Part Env-A 609. In accordance with RSA 125-C:11, I-a and consistent with 40 CFR 70.6(a)(2) this Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date five (5) years after issuance of this Permit.

Permit expiration terminates the Permittee's right to operate the Permittee's emission units, control equipment or associated equipment covered by this Permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

- B. Pursuant to Env-A 609.02(b), this Permit shall be a state permit to operate as defined in RSA 125-C:11, III.

XI. Title V Operating Permit Renewal Procedures:

Pursuant to Env-A 609.06(b), an application for renewal of this Permit shall be considered timely if it is submitted to the Director at least six months prior to the designated expiration date of this Permit.

XII. Application Shield:

Pursuant to Env-A 609.07, if an applicant submits a timely and complete application for the issuance or renewal of a Title V Permit, the failure to have a Title V Permit shall not be considered a violation of Part Env-A 609 until the Director takes final action on the application.

XIII. Permit Shield:

- A. Pursuant to Env-A 609.08(a), a permit shield shall provide that:
1. For any applicable requirement or any state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically included in this Permit, compliance with the conditions of this Permit shall be deemed compliance with said applicable requirement or said state requirement as of the date of permit issuance; and

2. For any potentially applicable requirement or any potential state requirement found in the New Hampshire Rules Governing the Control of Air Pollution specifically identified in Section IX of this Permit as not applicable to the stationary source or area source, the Permittee need not comply with the specifically identified federal or state requirements.
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- B. The permit shield identified in Section XIII.A. of this Permit shall apply only to those conditions incorporated into this Permit in accordance with the provisions of Env-A 609.08(b). It shall not apply to certain conditions as specified in Env-A 609.08(c) that may be incorporated into this Permit following permit issuance by DES.
 - C. If a Title V Operating Permit and amendments there to issued by the DES does not expressly include or exclude an applicable requirement or a state requirement found in the NH Rules Governing the Control of Air Pollution, that applicable requirement or state requirement shall not be covered by the permit shield and the Permittee shall comply with the provisions of said requirement to the extent that it applies to the Permittee.
 - D. If the DES determines that this Title V Operating Permit was issued based upon inaccurate or incomplete information provided by the applicant or Permittee, any permit shield provisions in said Title V Operating Permit shall be void as to the portions of said Title V Operating Permit which are affected, directly or indirectly, by the inaccurate or incomplete information.
 - E. Pursuant to Env-A 609.08(f), nothing contained in Section XIII of this Permit shall alter or affect the ability of the DES to reopen this Permit for cause in accordance with Env-A 609.18 or to exercise its summary abatement authority.
 - F. Pursuant to Env-A 609.08(g), nothing contained in Section XIII of this Permit or in any title V operating permit issued by the DES shall alter or affect the following:
 1. The ability of the DES to order abatement requiring immediate compliance with applicable requirements upon finding that there is an imminent and substantial endangerment to public health, welfare, or the environment;
 2. The state of New Hampshire's ability to bring an enforcement action pursuant to RSA 125-C:15,II;
 3. The provisions of section 303 of the Act regarding emergency orders including the authority of the EPA Administrator under that section;
 4. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 5. The applicable requirements of the acid rain program, consistent with section 408(a) of the Act;
 6. The ability of the DES or the EPA Administrator to obtain information about a stationary source, area source, or device from the owner or operator pursuant to section 114 of the Act; or

7. The ability of the DES or the EPA Administrator to enter, inspect, and/or monitor a stationary source, area source, or device.

XIV. Reopening for Cause:

The Director shall reopen and revise a Title V Operating Permit for cause if any of the circumstances contained in Env-A 609.18(a) exist. In all proceedings to reopen and reissue a Title V Operating Permit, the Director shall follow the provisions specified in Env-A 609.18(b) through (g).

XV. Administrative Permit Amendments:

- A. Pursuant to Env-A 612.01, the Permittee may implement the changes addressed in the request for an administrative permit amendment as defined in Part Env-A 100 immediately upon submittal of the request.
- B. Pursuant to Env-A 612.01, the Director shall take final action on a request for an administrative permit amendment in accordance with the provisions of Env-A 612.01(b) and (c).

XVI. Operational Flexibility:

- A. Pursuant to Env-A 612.02(a), the Permittee subject to and operating under this Title V Operating Permit may make changes involving trading of emissions under this existing Title V Operating Permit at the permitted stationary source or area source without filing a Title V Operating Permit application for and obtaining an amended Title V Operating Permit, provided that all the conditions are met as specified in Section XVI. A. 1. through 7. of this permit and a notice is submitted to the DES and EPA describing the intended changes. At this point, DES has not included any permit terms authorizing emissions trading in this permit.
 1. The change is not a modification under any provision of title I of the Act;
 2. The change does not cause emissions to exceed the emissions allowable under the title V operating permit, whether expressed therein as a rate of emissions or in terms of total emissions;
 3. The owner or operator has obtained any temporary permit required by Env-A 600;
 4. The owner or operator has provided written notification to the director and administrator at least 15 days prior to the proposed change and such written notification includes:
 - a. The date on which each proposed change will occur;
 - b. A description of each such change;
 - c. Any change in emissions that will result and how this change in emissions will comply with the terms and conditions of the permit;
 - d. A written request that the operational flexibility procedures be used; and

- e. The signature of the responsible official, consistent with Env-A 605.04(b);
 - 5. The title V operating permit issued to the stationary source or area source already contains terms and conditions including all terms and conditions which determine compliance required under 40 CFR 70.6(a) and (c) and which allow for the trading of emissions increases and decreases at the permitted stationary source or area source solely for the purpose of complying with a federally-enforceable emissions cap that is established in the permit independent of otherwise applicable requirements;
 - 6. The owner or operator has included in the application for the title V operating permit proposed replicable procedures and proposed permit terms which ensure that the emissions trades are quantifiable and federally enforceable for changes to the title V operating permit which qualify under a federally- enforceable emissions cap that is established in the title V operating permit independent of the otherwise applicable requirements; and
 - 7. The proposed change complies with Env-A 612.02 (e).
- B. Pursuant to Env-A 612.02(c), the Permittee subject to and operating under this Title V Operating Permit may make changes not addressed or prohibited by this existing Title V Operating Permit at the permitted stationary source or area source without filing a Title V Operating Permit application, provided that all the conditions specified in Env-A 612.02(c)(1) through (6) are met and a notice is submitted to the DES and EPA describing the intended changes.
 - C. Pursuant to Env-A 612.02(d), the Permittee, Operator, Director and Administrator shall attach each notice of an off-permit change completed in accordance with Section XVI of this Title V Operating Permit to their copy of the current Title V Operating Permit.
 - D. Pursuant to Env-A 612.02(e), any change under Section XVI shall not exceed any emissions limitations established under the NH Rules Governing the Control of Air Pollution, or result in an increase in emissions, or result in new emissions, of any toxic air pollutant or hazardous air pollutant other than those listed in the existing Permit.
 - E. Pursuant to Env-A 612.02(f), the off-permit change shall not qualify for the permit shield under Env-A 609.08.

XVII. Minor Permit Modifications:

- A. Pursuant to Env-A 612.04 prior to implementing a minor permit modification, the Permittee shall submit a written request to the Director in accordance with the requirements of Env-A 612.04(b).
- B. The Director shall take final action on the minor permit modification request in accordance with the provisions of Env-A 612.04(c) through (g).
- C. Pursuant to Env-A 612.04(h), the permit shield specified in Env-A 609.08 shall not apply to minor permit modifications under Section XVII. of this Permit.
- D. Pursuant to Env-A 612.04(i), the Permittee shall be subject to the provisions of Part Env-A 614 and

Part Env-A 615 if the change is made prior to the filing with the Director a request for a minor permit modification.

XVIII. Significant Permit Modifications:

- A. Pursuant to Env-A 612.05, a change at the facility shall qualify as a significant permit modification if it meets the criteria specified in Env-A 612.05(a)(1) through (7).
- B. Prior to implementing the significant permit modification, the Permittee shall submit a written request to the Director and to the EPA which includes all the information as referenced in Env-A 612.05(b) and (c) and shall be issued an amended Title V Operating Permit from the DES. The Permittee shall be subject to the provisions of Env-A 614 and Env-A 615 if a request for a significant permit modification is not filed with the Director and/or the change is made prior to the issuance of an amended Title V Operating Permit.
- C. The Director shall take final action on the significant permit modification in accordance with the procedures specified in Env-A 612.05(d), (e) and (f).

XIX. Title V Operating Permit Termination or Revocation:

- A. Pursuant to RSA 125-C:13, the Director may terminate or revoke any final permit issued hereunder if, following a hearing, the Director determines that:
 - 1. the Permittee has committed a violation of any applicable statute or state requirement found in the New Hampshire Rules Governing the Control of Air Pollution, an order, or permit condition in force and applicable to it; or
 - 2. the emissions from any device to which this Permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.

XX. Inspection and Entry:

Pursuant to RSA 125-C:6, VII. and Env-A 614.01, DES personnel shall be granted access to the facility covered by this Permit for the purposes of: inspecting the proposed or permitted site; investigating a complaint or condition which is believed to be in violation of the NH Rules Governing the Control of Air Pollution; and assuring compliance with any applicable requirement or state requirement found in the NH Rules Governing the Control of Air Pollution and/or conditions of any Permit issued pursuant to Chapter Env-A 600.

XXI. Certifications:

- A. Compliance Certification Report

In accordance with 40 CFR 70.6(c) the Responsible Official shall certify, annually from the date of issuance, that the facility is in compliance with the requirements of this permit. The report shall be submitted to the DES and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

In accordance with 40 CFR 70.6(c)(5), the report shall describe:

1. The terms and conditions of the Permit that are the basis of the certification;
2. The current compliance status of the source with respect to the terms and conditions of this Permit, and whether compliance was continuous or intermittent during the reporting period;
3. The methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
4. Any additional information required by the DES to determine the compliance status of the source.

B. Certification of Accuracy Statement

All documents submitted to the DES shall contain a certification of accuracy statement by the responsible official of truth, accuracy, and completeness. Such certification shall be in accordance with the requirements of 40 CFR 70.5(d) and contain the following language:

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

Note: All reports submitted to DES (except those submitted as emission-based fees outlined in Section XXIII of this permit) shall be submitted to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
Attn: Compliance Bureau Administrator

All reports submitted to EPA shall be submitted to the following address:

Office of Environmental Stewardship
Director Air Compliance Program
United States Environmental Protection Agency
1 Congress St.
Suite 1100 (SEA)
Boston, MA 02114-2023
Attn: Air Compliance Clerk

XXII. Enforcement:

Noncompliance with any permit condition constitutes a violation of RSA 125-C:15, and, as to the conditions

in this permit which are federally enforceable, a violation of the Clean Air Act, 42 U.S.C. section 7401 et seq., and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the DES and/or EPA. Noncompliance may also be grounds for assessment of administrative, civil or criminal penalties in accordance with RSA 125-C:15 and/or the Clean Air Act. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of RSA 125-C, the New Hampshire Rules Governing the Control of Air Pollution, or the Clean Air Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

In accordance with 40 CFR 70.6 (a)(6)(ii), RSA 125-C:11, I-a., and Env-A 609.04(b), a Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

XXIII. Emission-Based Fee Requirements:

- A.** The Permittee shall pay an emission-based fee annually for this facility as calculated each calendar year pursuant to Env-A 704.03.
- B.** The Permittee shall determine the total actual annual emissions from the facility to be included in the emission-based multiplier specified in Env-A 704.03(a) for each calendar year in accordance with the methods specified in Env-A 620.
- C.** The Permittee shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 704.03 and the following equation:

$$FEE = E (DPT (CPI_m (ISF$$

Where:

- FEE = The annual emission-based fee for each calendar year as specified in Env-A 704.
 - E = The emission-based multiplier is based on the calculation of total annual emissions as specified in Env-A 704.02 and the provisions specified in Env-A 704.03(a).
 - DPT = The dollar per ton fee the DES has specified in Env-A 704.03(b).
 - CPI_m = The Consumer Price Index Multiplier as calculated in Env-A 704.03(c).
 - ISF = The Inventory Stabilization Factor as specified in Env-A 704.03(d).
- D.** The Permittee shall contact the DES each calendar year for the value of the Inventory Stabilization Factor.
 - E.** The Permittee shall contact the DES each calendar year for the value of the Consumer Price Index Multiplier.
 - F.** The Permittee shall submit, to the DES, payment of the emission-based fee by October 15th of the following calendar year and a summary of the calculations referenced in Sections XXIII.B. and C. of this Permit by April 15th of the following year for each calendar year in accordance with Env-A 704.04. The emission-based fee shall be made payable to: Treasury-State of NH and shall be submitted with the summary of the calculations to the following address:

New Hampshire Department of Environmental Services
Air Resources Division
6 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095
ATTN: Emissions Inventory

- G. The DES shall notify the Permittee of any under payments or over payments of the annual emission-based fee in accordance with Env-A 704.05.

XXIV. Duty To Provide Information

In accordance with 40 CFR 70.6 (a)(6)(v), upon the DES's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee shall furnish to the DES copies of records that the Permittee is required to retain by this Permit. The Permittee may make a claim of confidentiality as to any information submitted pursuant to this condition in accordance with Part Env-A 103 at the time such information is submitted to DES. DES shall evaluate such requests in accordance with the provisions of Part Env-A 103.

XXV. Property Rights

Pursuant to 40 CFR 70.6 (a)(6)(iv), this Permit does not convey any property rights of any sort, or any exclusive privilege.

XXVI. Severability Clause

Pursuant to 40 CFR 70.6 (a)(5), the provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

XXVII. Emergency Conditions

Pursuant to 40 CFR 70.6 (g), the Permittee shall be shielded from enforcement action brought for noncompliance with technology based¹³ emission limitations specified in this Permit as a result of an emergency¹⁴. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating

¹³ Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

¹⁴ An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- B. The permitted facility was at the time being properly operated;
- C. During the period of the emergency, the Permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this Permit; and
- D. The Permittee submitted notice of the emergency to the DES within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

XXVIII. Permit Deviation

In accordance with 40 CFR 70.6(a)(3)(iii)(B), the Permittee shall report to the DES all instances of deviations from Permit requirements, by telephone or fax, within 24 hours of discovery of such deviation. This report shall include the deviation itself, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Said Permit deviation shall also be submitted in writing to the DES in the semi-annual summary report of monitoring and testing requirements due July 31st and January 31st of each calendar year. Deviations are instances where any Permit condition is violated and has not already been reported as an emergency pursuant to Section XXVII of this Permit.

Reporting a Permit deviation is not an affirmative defense for action brought for noncompliance.

APPENDICES

Appendix A

HON Applicability to IPN Plant Equipment

(See Tables A1, A2, A3, & A4 for HON Applicability to IPN Plant Equipment)

Table A1
HON Applicability to IPN Plant (Plant 4) Equipment
Process Equipment
 (All process vents subject to Subpart G are Group 2 emission sources)

Equipment ID No.	Description	Subject to Subpart G	Reason	Citation
VA-18-008	Distillation Column	YES	Continuous, contains VOHAP	63.100(e)
VA-18-010	Stripper Column	YES	Continuous, contains VOHAP	63.100(e)
VB-18-006	Product Receiver	YES	Part of Stripper Column, contains VOHAP	63.100(e)
VA-18-006	Product Receiver	YES	Part of Stripper Column, contains VOHAP	63.100(e)
VA-18-005	Raw Material Charge Vessel	NO	Not in VOHAP service	63.100 (f)9
VA-18-004	Raw Material Charge Vessel	NO	Not in VOHAP service	63.100 (f)9
VA-18-001	Reactor	NO	Operates in batch mode	63.100 (j)4
VA-18-014	Reactor	NO	Operates in batch mode	63.100 (j)4
TA-18-107	Intermediate Feed Tank	NO	Surge control vessel, subject to Subpart H	63.100 (e)3
TA-18-106	Reactor Catch Tank	NO	Operates in batch mode	63.100 (j)4
FA-18-001	Filter	NO	Operates in batch mode	63.100 (j)4
FB-18-001	Filter	NO	Operates in batch mode	63.100 (j)4
FC-18-001	Filter	NO	Operates in batch mode	63.100 (j)4

Table A2
HON Applicability to IPN Plant (Plant 4) Equipment
Storage Vessels

Equipment ID No.	Description	Volume (gallons)	Subject to Subpart G	Reason
TA-18-104	Product Storage Tank	15,000	YES (Group 2)	<40,000 gal & <5.2kPa
TA-18-103	Product Storage Tank	18,000	YES (Group 2)	<40,000 gal & <5.2kPa
TA-18-110	Reactant Storage Tank	30,000	YES (Group 2)	<40,000 gal & <5.2kPa

Table A3
HON Applicability to IPN Plant (Plant 4) Equipment
Transfer Equipment

Equipment ID No.	Description	Subject to Subpart G	Reason	Citation
F-18-011	Transfer/Loading Rack	NO	Vapor Balance	63.100(f)10

Table A4
HON Applicability to IPN Plant (Plant 4) Equipment
Process Equipment Containing Group 1 Wastewater

Equipment ID No.	Description	Volume (gallons)	Subject to Subpart G	Reason
TA-18-102	Effluent Storage Tank	5,000	YES (Group 1 WW)	>10,000 ppm VOHAP

Appendix B

MAXIMUM EMISSION RATES (LB/DAY) FOR OPERATIONS AT THE FACILITY

Table 4B

Appendix C

Stratospheric Ozone Protection

Table C1 - List of Chiller Units at Hampshire Chemical Corp.

Table C1 - List of Chiller Units at Hampshire Chemical Corp.	
Equipment ID#	Location
KA-07-406	Building 7A
KA-07-407	Building 7
KA-07-408	Building 7
KA-07-409	Building 7
KB-07-409	Building 7
HA-00-000	Outside Building 3
KA-15-022	Building 15
KB-15-022	Building 15
KA-15-021	Building 15
KB-15-021	Building 15
FA-10-003	Building 10
FB-10-003	Building 10
MA-11-001	Building 11

TABLE 4B
HAMPSHIRE CHEMICAL CORPORATION
WORST CASE MAXIMUM OPERATING CONDITIONS
PEAK DAILY EMISSION RATES (LB/DAY)

OLD VENT No./ VESSEL OR TANK ID #	NEW VENT ID #	CONTROLLED DAILY EMISSIONS																	
		NH3 (lb/day)	CH2O (lb/day)	HCl (lb/day)	HCN (lb/day)	Isophorone (lb/day)	IPA (lb/day)	CH3OH (lb/day)	HNO3 (lb/day)	EDA (lb/day)	AEEA (lb/day)	MEA (lb/day)	MMA (lb/day)	PDA (lb/day)	DETA (lb/day)	TDI (lb/day)	NO (lb/day)	NO2 (lb/day)	N2O (lb/day)
TA-02-172	B02-TN-01	4.13E+01	2.03E-01	0.00E+00	1.27E+00	0.00E+00	0.00E+00	4.32E+02	0.00E+00	4.04E-01	4.04E-04	1.68E-02	1.93E+00	0.00E+00	1.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-02-015	B02-TN-04	1.09E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-02-161	B02-TN-05	4.52E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-068	B03-PN-06	6.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-065	(B03-PN-10) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-214	(B03-PN-11) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-212	(B03-PN-14) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-003	(B03-PN-16) *	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-076	B03-PN-17	0.00E+00	0.00E+00	3.85E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-026	B03-PN-22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-039	B03-PN-36	5.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VC-03-215	(B03-PN-39) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-03-058	B03-PN-40	0.00E+00	9.76E-01	0.00E+00	2.35E+00	0.00E+00	0.00E+00	7.87E-01	0.00E+00	1.37E+00	2.07E-06	0.00E+00	4.23E+00	0.00E+00	1.07E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-03-119	B03-TN-01	0.00E+00	3.80E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.21E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-03-148	B03-TN-05	0.00E+00	0.00E+00	1.90E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-03-122	(B03-TN-12) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-03-142	(B03-TN-16) *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	see B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VB-03-102	B03-TN-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.47E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-05-134	B05-PN-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E+00	3.10E-01	3.10E-01
VA-05-136	B05-PN-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E+00	3.10E-01	3.10E-01
TA-05-175	B05-TN-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.15E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-08-033	B08-PN-04	0.00E+00	2.89E-01	0.00E+00	6.73E+00	0.00E+00	0.00E+00	7.60E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-08-079	B08-PN-09	6.53E+01	6.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

TABLE 4B
HAMPSHIRE CHEMICAL CORPORATION
WORST CASE MAXIMUM OPERATING CONDITIONS
PEAK DAILY EMISSION RATES (LB/DAY)

OLD VENT No./ VESSEL OR TANK ID #	NEW VENT ID #	CONTROLLED DAILY EMISSIONS																	
		NH3 (lb/day)	CH2O (lb/day)	HCl (lb/day)	HCN (lb/day)	Isophorone (lb/day)	IPA (lb/day)	CH3OH (lb/day)	HNO3 (lb/day)	EDA (lb/day)	AEEA (lb/day)	MEA (lb/day)	MMA (lb/day)	PDA (lb/day)	DETA (lb/day)	TDI (lb/day)	NO (lb/day)	NO2 (lb/day)	N2O (lb/day)
VB-08-062	B08-PN-17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-08-037	B08-PN-23	0.00E+00	2.05E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.56E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TB-08-150	B08-TN-06	0.00E+00	8.88E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.96E+00	2.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MA-15-022	B15-PN-02	0.00E+00	1.32E-02	0.00E+00	4.25E-03	0.00E+00	0.00E+00	1.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-15-011	B15-PN-09	2.36E+01	3.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-15-007	B15-PN-11	0.00E+00	4.91E-02	0.00E+00	2.99E+00	0.00E+00	0.00E+00	4.47E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-15-114	B15-TN-03	9.62E+00	8.07E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-15-104	B15-TN-05	0.00E+00	1.19E-02	0.00E+00	7.71E-01	0.00E+00	0.00E+00	2.51E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-16-509	B16-TN-11	0.00E+00	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VA-18-002	B18-PN-02	0.00E+00	0.00E+00	0.00E+00	2.68E-01	1.06E+01	0.00E+00	1.30E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-18-101	B18-TN-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-45-115	B45-TN-01	0.00E+00	0.00E+00	0.00E+00	1.15E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TA-45-187	B45-TN-02	0.00E+00	0.00E+00	0.00E+00	2.02E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total Emissions, lbs/day		152.31	2.56	40.40	18.55	11.97	44.75	749.93	1.54	1.77	4.06E-04	0.02	39.27	0.18	0.03	0.00	5.74	0.62	0.62
Total Emissions, lbs/yr (365 days/yr)		55,594	934	14,745	6,773	4,370	16,332	273,726	564	647	1.48E-01	6	14,335	66	10	-	2,095	226	226
Total Emissions, tons/yr		27.80	0.47	7.37	3.39	2.19	8.17	136.86	0.28	0.32	0.00	0.00	7.17	0.03	0.00	0.00	1.05	0.11	0.11
Total VOC Emissions, tons/yr		155.21																	

Note: Vents marked with * are vented to the IPA scrubber B03-TN-19.

LIST OF ABBREVIATIONS

NH ₃	Ammonia	7664-41-7
CH ₂ O	Formaldehyde	50-00-0
HCl	Hydrogen Chloride	7647-1-0
HCN	Hydrogen Cyanide	74-90-8
IPH	Isophorone	78-59-1
IPA	Isopropanol	67-63-0
CH ₃ OH	Methanol	67-56-1
HNO ₃	Nitric Acid	7697-37-2
EDA	Ethylenediamine	107-15-3
AEAA	Aminoethylethanolamine	111-41-1
MEA	Monoethanolamine	141-43-5
MMA	Monomethylamine	74-89-5
PDA	1,3-Propanediamine	109-76-2
DETA	Diethylenetriamine	111-40-0
TDI	Toluene Diisocyanate	26471-62-5
NO	Nitric Oxide	
NO ₂	Nitrogen Oxide	
N ₂ O	Nitrous Oxide	